

WILLIAM DWIGHT WHITNEY
LINGUISTIC SERIES

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KOREAN MORPHOPHONEMICS

BY

SAMUEL E. MARTIN



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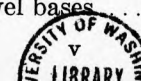
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KOREAN MORPHOPHONEMICS

1. **Field of operations.**¹ The term MORPHOPHONEMICS has been used in two general senses. In the narrow sense, we have the definition of Bernard Bloch, *Lg.* 23.414 (1947), 'Morphophonemics is the study of the alternation between corresponding phonemes in alternant shapes of the same morpheme.' In the broad sense, we have Charles F. Hockett's statement, *Lg.* 26.63 (1950), 'Morphophonemics ... subsumes every phase of the phonemic shape of morphemes: the typical shape of alternants, the types of alternation, and the various environmental factors (phonological or grammatical) which elicit one alternant or another of those morphemes which appear in more than one shape.' I propose to broaden the definition still further. As used in this paper, morphophonemics is the system, or the study of the system, of the shapes and classes-of-shapes of utterance constituents.

Earlier definitions have assumed the existence of morphemes, and so of morpheme occurrences and morpheme alternants. My definition is based only on the following assumptions:

(1) that the utterance is a readily ascertained unit:

(2) that every utterance consists in its entirety of phonemes (strictly, of phoneme occurrences);

(3) that every utterance has a system of immediate constituency; and,

(4) that every phoneme belongs to some constituent, though some phonemes belong to more than one constituent and some constituents (zero alternants) have no phonemes.

1.1. **Orthography.** The Korean forms are cited throughout in the Yale romanization, which foregoes the use of unusual symbols or diacritics other than the macron to indicate vowel length (cf. §2.4.1). This is made possible by assigning the five Roman vowel symbols to the more common or basic Korean vowels, and representing the other four vowels by digraphs derived from their phonemic components:

¹ This paper is a continuation of the study of Korean structure which I began in *Korean Phonemics*, *Lg.* 27.519-33 (1951). The final version has benefited from conversations held with Korean scholars in June and July 1954 while I was in Korea as a Morse Fellow from Yale University; I wish to thank the Social Science Research Council for the travel grant which made this trip possible. For their kindness in providing me with valuable information and discussion, I am grateful to Cang Ciyeng, Ceng Pyengwuk, Ceng Sekhay, Choy Hyen-pay, He Wung, Kim Sencay, Kim Yunkyeng, Kwen Cwunghwi, Pak Changhay, and Payk Nakewun. In addition, President Syngman Rhee (*I Sungman*) and his Education Minister Sungkeun Lee (*I Senkun*) kindly explained their views on the Korean language to me.

I have relied heavily on the speech of Miss Young-Sook Chang (*Cang Yengswuk*) and Mr. Sung-Un Chang (*Cang Sengen*) of Yale University both for primary data and for checking the reliability of secondary data. Mr. Yangha Lee (*I Yangha*) has also been helpful.

Most of the examples are cited in the intimate style (sentence-final infinitive *-e*) for consonant bases (§11.1) and L-extending vowel bases (§11.2.1), but in the plain style (*-ta*) for other vowel bases. This facilitates ready identification of the base. Those bases translated by English 'be (something)' are usually of descriptive verbs, those translated by English 'do (something)' are usually of processive verbs (§3.2); unusual cases are marked.

	i [i]	u [u]	wu [u]
oy [œ]	ey [e]	e [ɛ] or [ɔ]	o [o]
	ay [ɛ] or [æ]	a [a]	

The digraph *wu* [u] is abbreviated to *u* after a labial initial (*p*, *pp*, *ph*, *m*) or after *y*, since in no word is there any real contrast with *u* [i] after these initials.

Each of the digraphs *ey*, *ay*, and *oy* is read together as part of a single syllable; after the vowel symbols *i* and *u*, the letter *y* begins a new syllable. As a result, within a word when the phoneme *y* does begin a syllable after *e* [ɔ], *a*, or *o*, it is necessary to write a hyphen between, except in the case of *yo* + *y*, which offers no possibility of contrast (in *kyōyuk* 'education' the second *y* begins the second syllable).²

The hyphen can also be used when one wishes to distinguish orthographic syllables (as shown in the native spelling system, which has many morphophonemic features) or morphologically divided words from spoken syllables (which are automatic sequences of phonemes, and so predictable). When constituents are explicitly indicated in this paper, a dot usually separates morphs, but the hyphen is sometimes used to show various types of word constituency as well as to indicate abbreviated elements.

The only difference between the notation of the consonants and the phonemes as analyzed in Korean Phonemics is the use of the digraph *ng* for /ŋ/ and the use of double letters for consonant + /q/: *pp*, *tt*, *ss*, *cc*, *kk* represent /pq, tq, sq, cq, kq/ respectively. The reasons for this are made explicit in §13.

1.2. Constituency. Each utterance of a language can be entirely divided into successively smaller IMMEDIATE CONSTITUENTS (at each level usually a binary set, but sometimes plural). The ultimate constituents we call MORPHS. Some constituents are discontinuous; some overlap other constituents. It sometimes happens that a single phoneme occurrence belongs at the same time to two contiguous morphs, but every phoneme occurrence belongs to at least one morph.

How do we determine the system of immediate constituency? How do we know where to cut in the sequence of phonemes to arrive at our ultimate constituents? One way is to find a correlation with the semantic structure—a morph

² The hyphen usually coincides with a morph boundary. In a practical orthography, the hyphen can be omitted everywhere, since there seem to be no minimal contrasts. There are only 8 common words with *e-y*: *e-yes* 'dignified, well-behaved', *he-yeh-* 'very white, pale', *he-yong* 'permission', *he-yu* 'permission', *ke-yen hi* 'suddenly', *sē-yak* 'oath', *se-yang* 'Occident', *ye-yu* 'leeway, margin'; 8 with *a-y*: *a-ya* 'ouch', *a-yu* 'oh', *ca-yen* 'nature', *ca-yu* 'freedom', *ka-yeps-* 'be pitiful', *ka-yo* 'folksong', *ha-ye* = *hay* 'does' (literary infinitive, §12.5), *pa-yollin* 'violin' (but also *paiollin*); and 21 with *o-y*: *co-yak* 'treaty', *kō-yak* 'unseemly', *ko-yangi* = *kwaiyngi* 'cat', *ko-yo* 'calm, still', *ko-yong* 'hiring', *ko-yu* 'individual', *mo-yang* 'manner', *mo-yok* 'insult', *no-yew-* 'be angry', *no-yeng* 'bivouac', *ō-yek* 'mistranslation', *ō-yen* 'pride, arrogance', *ō-yok* 'disgrace', *ō-yong* 'misuse', *po-yah-* 'be pale white', *ppo-yah-* 'be silvery', *pō-yu* 'supplement', *sō-yo* 'essential', *sō-yong* 'need', *sō-yu* 'possession', *to-yak* 'kick'. There is also *no-yey* 'slave'. This word is actually pronounced *no-ey*; the *ey* is an automatic reflex of a basic *yey*, §8. A similar case is *a-yey* 'from the start', pronounced *a-ey*. The hyphen is also required to make explicit the pronunciation of literary infinitives of verbs whose bases end in *ai* or *oi*: *ssa-ye* 'gets wrapped', *po-ye* 'can be seen'. The colloquial infinitives are *ssay* and *po-y*.

is some segment of the total phoneme sequence which corresponds to some segment of the total meaning. But semantic correlations, like phonetic descriptions, are really outside the realm of linguistic investigation proper, as Martin Joos has clearly shown *Journal of the Acoustical Society of America* 22.701-9 (1950). Meaning and sound are not a part of the symbolic code itself, but are its bridges to reality.

The linguistic basis for a system of constituency, then, is not a semantic one; it is a kind of statistical statement of environmental occurrences. But techniques for arriving at this sort of statement are at present crude, and we usually rely to some extent on what we can find out about the meaning in order to refine our constituency analysis.³ For purposes of the present study, I consider the constituency analysis of each Korean utterance as known. I do not avoid speaking in terms of meaning when necessary, but I prefer to speak in terms of DIFFERENTIAL rather than DENOTATIVE meaning. All grammatical terms are used as mere tags, subject to unique definition with reference to the structure of Korean, and any resemblance to the use of the same terms (noun, verb, aspect, tense, mood, etc.) in descriptions of other languages—while not accidental—is tolerated only in order to achieve a handy terminology, at the risk of possible misinterpretation.

If two constituents have the same shape and meaning, I assume they are the same constituent; that is, the term constituent (and so also the term morph) is used to mean both a unique occurrence and a class of such occurrences which are identical in shape and meaning.

1.3. Words. As a linguistic term, the word is to be defined as some sort of sequence of phonemes, or a class of such sequences—or else it is not a relevant concept at all. It happens that for some languages, but not necessarily all, a comparison of all the occurrences of each immediate constituent in all the utterances of the language (or, for practical purposes, a representative sample) reveals that a great many immediate constituents are CONSTANT—they are always an immediate constituent of some larger sequence or are whole utterances, wherever they occur. Such a constant constituent is a WORD ALTERNANT.

For Korean, I define the word as a class of word alternants in complementary distribution and with the same meaning. With very few exceptions (notably *i/ka*, the subject particle), the alternants of a word show partial phonemic congruence—they have some stretch of phonemic makeup in common.

Since SHAPE and SHAPE ENVIRONMENT are not used in the definition of the word, it is implied that a word need not have any alternant which is pronounceable (i.e. congruent to the shape of an element which is sometimes pronounced) in isolation, i.e. bounded by pause. Some words do not occur in isolation (for example, the Korean particles) and there exists the possibility that one of these might have no alternant congruent to some other word alternant which does occur in isolation. Each Korean word I have found which does not occur in

³ On immediate constituents, cf. Rulon S. Wells, *Immediate Constituents*, *Lg.* 23.81-117 (1947) and Eleanor Harz Jorden, *The Syntax of modern colloquial Japanese* (Yale dissertation 1949, mss).

isolation has at least one alternant which is phonemically congruent to a word which occurs in isolation: The direct-object particle has the alternants *lul* (variant *l*) after a word ending in a vowel, *ul* after a word ending in a consonant (variant zero after */l/*).⁴ The alternant *lul* is not congruent to any isolated alternant, since the phoneme */l/* never occurs after pause (I ignore recent loanwords for the moment, cf. §9); but the alternant *ul* is congruent to the word *ul* meaning 'B, number 2 in a series'.

If two word alternants differ in shape, by definition they differ also in morphs. But two word alternants that have the same shape may still differ in morphs; they are then homonymous but different words. If two word alternants have the same shape and do not differ in morphs, they are different occurrences of the same word alternant. If two word alternants differ in shape and morphs, but are in complementary distribution and have the same meaning, they are alternants of the same word, and consist of occurrences of the same morpheme sequences.

Phonemes of pause and pitch are considered to belong to no word. This is perhaps somewhat arbitrary, since it would not seem too implausible to set up word alternants which consist in their entirety of pause and of various pitch sequences. But such words would be marginal with respect to continuity and type of shape, and also with respect to meaning. (On intonation morphs, see §17. On lexically distinctive pitch in certain dialects, see §2.4.1.)

1.4. Morphemes. It is assumed there is an advantage in grouping together morphs of different shapes into classes called MORPHEMES. These are established on the basis of complementary distribution and similarity of meaning. Two morphs are in complementary distribution if they have no immediate environment in common within a total utterance. Two morphs are similar in meaning if they have many (immediate and non-immediate) environments in common within parts of utterances. How many is 'many'? How similar is 'similar'? In phonemics 'phonetic similarity' is a conceivably dangerous shorthand for 'sharing a phonemic component'. In morphemics 'meaning similarity' for linguistic purposes means 'meaning sameness'. Two morphs are either sufficiently 'similar' (from semantic analysis or the native's naive intuition) to be the 'same' as far as linguistic (differential) meaning goes, or they are 'different.' The few doubtful cases gravitate (according to the clustering of environment indices in the many obvious cases) toward one pole or the other.

There is no criterion of phonemic similarity in morphemics. Morphs can belong to the same morpheme without having any parallel stretch of phonemes in common. But as it happens, except for common morphemes whose environments are strictly limited to a well patterned series corresponding roughly to what the

⁴ Not to be confused with the omission of the particle altogether in a construction variant. *Phul kkakke* 'He cuts the grass' with the zero alternant to which I refer is proportional to *I kes ul kkakke* 'He cuts this' and *I ke l kkakke* 'He cuts this'; with the particle-omitting construction variant, the same phonemic stretch—a different morphemic sequence—is proportional to *I ke kkakke* and *I ket (,) kkakke*. Subject and object particles are not the only ones omitted in rapid speech: *Ne cwuma* is a variant of *Ne hanthey cwuma* 'Let me give it to you; I'll give it to you.'

semanticist in his analysis may want to call 'grammatical', 'functional', or 'relational' meanings, most morphemes with less restricted ranges of environment seem to include no alternant which does not bear partial phonemic congruence to some other alternant. I think this fact has a direct correlation with the obvious difficulty of maintaining a symbolic system in which different entities function as one symbol without some sort of systematic formal relationship between them.

2. Variants. One of the troublesome problems in a morphophonemic analysis is the treatment of what I propose to call VARIANTS. By this term, I mean two morphemes or words which are similar in meaning (i.e. linguistically the 'same' in meaning, §1.4) and are partially congruent in shape, but have at least one environment in common within a total utterance. Because the two variants are not in complementary distribution, they can not be classed in one morpheme (or word). In such cases, there is a relationship which is linguistically relevant, and I propose to call the classes formed by two or more variants QUASI-MORPHEMES and QUASI-WORDS.

To a casual observer, some examples of quasi-words and quasi-morphemes look like cases of words and morphemes no different from any other, but a closer examination shows the distributional conflict which prevents such outright identification.

In the semanticist's analysis, the factors involved in these quasi-classes might be called 'style of speech' and 'precision of speech' in some cases; in others, 'word shortenings' or 'abbreviations'. In many cases, the traditional linguist will refer the differences to the comparison and history of different speakers and call it 'dialect variation' and 'dialect mixture.' Different types of variants are illustrated in the following sections.

2.1. Style variants. As used here, the term style refers primarily to the peculiarly complex linguistic correlates of the Korean system of social status. Corresponding to the ordinary noun *ilum* 'name' there are the words *sēngham* 'name (of someone honored)' and *sēngmyeng* 'name' (used in an impersonal document). Corresponding to *na* 'I, me' there is *ce* 'I, me' (used in formal situations). In view of the limited number of such sets, and the lack of systematic correspondences among them, it seems best to treat each as a separate lexical item, related only in the way that any set of so-called 'synonyms' are, by sharing a meaning component.

With inflected forms, the situation is more complicated. There is an honorific marker (a non-final inflectional suffix) which indicates the status of the subject of the verb; this I shall call STATUS rather than STYLE. There are sentence-final endings which differ according to 6 types of social relationship between the person speaking and the person spoken to (though several types often alternate with each other in extended speech with the same person): FORMAL, POLITE, INTIMATE, FAMILIAR, AUTHORITATIVE, and PLAIN styles. As a kind of sub-variety, within both POLITE and INTIMATE styles there are CASUAL and CIRCUMSTANTIAL-EXCLAMATORY constructions, which are perhaps best treated as separate styles. There are also QUOTATION constructions, which differ but slightly from the PLAIN

style. The endings are suffix sequences, which vary in complexity according to the style. The plain and formal styles differentiate 8 sentence-final types: statement, question, realization, retrospective statement, retrospective question, retrospective realization, suggestion, and command. Other styles have the same shape for two or more of these categories (the retrospective categories are lacking altogether in 3 styles), and some have periphrastic constructions or shapes homonymous with non-sentencefinal endings of similar meaning (e.g. the adverbial *-key* 'so that' is the same shape as the command form for the familiar style; the infinitive *-e* etc. is the same shape as all four sentence-final forms of the intimate style, cf. §12.5). The formal style is marked by a specific non-final suffix with the alternant shapes *-p-*, *-up-*, *-sup-*, *-u-*, *-s-*, *0*, but the other styles are marked by choice of one of several differently shaped suffix sequences with otherwise the same meaning (as a total sequence 'statement, question' etc. though both the suffix sequences and their meanings can be further broken down, as shown in §12.1, §12.3).

The emphasis in this paper is on shape; in presenting the inflected forms, endings are cut without immediate regard for style, so that, for example, a verb-final sub-category 'propositive' includes *-ca*, *-ta*, and *-ey* even though these are in contrast as plain, formal, and informal/familiar respectively, and it does not include the *-e* of the intimate style which is the same as the forms for other categories and is treated as the 'infinitive' throughout—being 'used' for additional purposes in this particular style. The resulting treatment is a sort of composite which includes style factors only when forced to do so, and then marginally.

2.2. Precision variants. In fast or sloppy speech, *n* is replaced by *m* before *p* or *m*; *n* and *m* are replaced by *ng* before *k*: *sanppo*, *samppo* 'stroll, walk'; *han pen*, *ham pen* 'one time'; *cwumpi*, *cwumpi* 'preparation'; *mōn meke*, *mōm meke* 'can't eat'; *sinmun*, *simmun* 'newspaper'; *chinkwu*, *chingkwu* 'friend'; *pankawe*, *pangkawe* 'is happy'; *son-kkalak*, *song-kkalak* 'finger'; *camkkan*, *cangkkan* 'a while'; *nemkye*, *nengkye* 'across, over'; *imkum*, *ingkwum* 'king'; *cikum kkaci*, *cikung kkaci* 'up to now'.

Also in fast or sloppy speech, *pk* is replaced by *kk*: *kōmapkeyssumnita*, *kōmakkeyssumnita* 'I'll be grateful'; *sip kwū*, *sik kwū* '19'; *chwupko*, *chwukko* 'is cold and'; *poypkeyssumnita*, *poykkeyssumnita* 'I'll see you'.

2.3. Abbreviations. Two variants are ABBREVIATION and MODEL when the shape of the former is included in (but does not exhaust) the shape of the latter, and the meanings are so similar as to be considered linguistically identical. In more rigorous terms: when the shorter and longer forms are members of classes X and Y respectively, such that the difference in meaning between corresponding members of any pair of the two classes is identical with the difference between any other two corresponding members. E.g. *hanta -myen* is to *hanta hamyen* 'if (it be said) someone does' as *i ke -y* is to *i kes i* 'this thing (as subject)'.

Unless the model contains only one constituent (*ay*, *ai* 'child'; *twāy-ci*, *to-yaci* 'pig'), an abbreviation can often be clearly delineated only if it contains some phonemic material from each constituent: It is difficult to decide whether *cha* 'car' is independently an abbreviation of *catongcha* 'motorcar', *cēncha* 'street-car', and *kicha* 'train' or whether the latter three words are expansions of *cha*

'car' with particularizing prefixed elements *catong-* 'automatic', *cēn-* 'electric', and *ki-* 'steam', respectively.

When abbreviations do not involve inflected forms or particles, they are most handily treated as entities different from their synonymous models. In charting the structure of inflected forms or the occurrence of particles, however, it is often convenient to ignore the abbreviated forms and treat only the models. For example, abbreviation of the base *ha-* 'do; say' to zero after a vowel is here ignored, provided the model is in common colloquial use. (But all ambivalent bases are apparently historical abbreviations from an element + *ha-*; see §11.3–4.) On the other hand, the abbreviation of the copula base + *i-* to zero after a vowel is not substantiated by the existence of a colloquial model occurring in that position; in this one case, the unique morphophonemic alternation of a base (paralleled by the uniqueness of its non-occurrence after pause) is most conveniently noted as if it were an abbreviation variant. But the forms of the copula (with the exceptions noted in §12.5 [8–10]) are actually in complementary distribution and the forms of *ha-* are variants in contrast.

Some common shortened variants are *ke* for *kes* 'thing; one; likely fact'; *mue*, *mwe*, *me* (§2.4.8, §2.4.3) for *mues* 'what'; *-y* for the subject particle *i* in *ke -y* for *kes i* and in *mue -y* for *mues i*; *an* for *ani* 'not'; and the base *anh-* for *ani ha-* 'not do; not be'. A more drastic abbreviation is *k-ey se* for *keki ey se* 'there, in that place'. The honorific-marker alternant *-si-* is shortened to *-s-* (or the automatic reflexes of this phoneme) when attaching a consonant, in a variant of *capswu-si-* 'eat, drink' (of someone honored): *capswu-k-ko* = *capswu-si-ko* (gerund). In everyday speech, the extending *l* of L-extending vowel bases (§11.2.1) is often dropped before the subjunctive assertive ending *-ca*: *mun ul yēca* = *mun ul yēlca* 'he no sooner opens the door (than) . . . '.

The base *kwaynchanh-* 'be irrelevant, make no difference, be OK' is peculiarly complex. It shows four levels of shortening: (1) *kwaynchi anh-*, (2) *kwayn haci anh-* = *kwan haci anh-* (§2.4.10), (3) *kwan haci an ha-*, (4) *kwan haci ani ha-* (descriptive verbal noun *kwan* 'be relevant' + suspective *-ci* of descriptive verb *ha-* 'be' + adverb *ani* 'not' + descriptive auxiliary verb *ha-*). Abbreviation of *-ci anh-* to *-canh-* is very common (cf. §2.4.8).

After most descriptive verbal nouns (§3.1), forms of *ha-* 'do; be' which consist of the base + an ending beginning with *t*, *c*, or *k* have shortened variants, in which the vowel is dropped and *h* undergoes metathesis with the voiceless consonant: *tha* for *hata*, *chi* for *haci*, *kho* for *hako*. E.g. *kantan tha* 'is simple', *kantan kho* 'being simple', *kantan chi* 'is simple I suppose'.

After some processive verbal nouns, certain forms of *ha-* are abbreviated in the same way: *sayngkak (k)hey* = *hakey* 'so that one thinks'. (The expected sequence *kkh* is automatically replaced by *kh*, §5.) The shortened variant of the suspective *haci* 'does I suppose' has two alternants: *chi* after a typically voiced sound (*salang chi* 'loves I suppose') and *ci* after a typically voiceless sound (*sayngkak ci* 'thinks I suppose'). After a descriptive verbal noun, the variant of *haci* 'is I suppose' is always *chi*: *nengnek chi* 'is enough I suppose', *phyengan chi* 'is comfortable I suppose'.

Some verb bases have shortened variants like *kac-* for *kaci-* 'hold, have'. The

sequence *katta* in *katta cwue* 'brings (for someone)' is easy to misconstrue as *kass-ta*, the past transferentive (§12.11) of *ka-* 'go'; or as *kac-ta*, the transferentive of *kac-*, the shortened variant of *kaci-* 'hold'. But it is actually a unique abbreviation of *kace -ta*, the infinitive of *kaci-* 'hold' + the copula transferentive *ita*, used to show a shift in action (§12.11). The proper Hankul spelling is *kac-ta*. Compare *etta* = *et- -ta*, an abbreviation of *eti -ta* 'where (to)'.

2.4. Sequence variants. There are certain types of variants which are widely systematic: a certain sequence of phonemes for which we always, or always within a morph or word alternant, find a variant of a consistent shape. There are also some which are less predictable, but also widespread, of a similar type. These I call SEQUENCE VARIANTS. There are ten types of these discussed below.

2.4.1. Vowel length variants. Vowel length is distinctive in Korean, and the long vowel is phonemically a sequence of two short vowels. But many speakers do not use long vowels in all the words which have long vowels for some speakers, so that most words containing a long vowel within a morph have short variants. Even for a speaker making a maximum use of these length distinctions, the long vowel is usually restricted to the first few syllables of a word, so that virtually every morph with a long vowel has a grammatically conditioned alternant with a short one. But not all short-vowel morphs have long alternants or variants. For practical purposes, I indicate a variable long vowel—i.e. any long vowel within a morph—with a macron above the letter symbol. The words *kīl* 'height' and *ki-īl* 'the appointed day' are sometimes homonyms for some speakers; at other times for these speakers and at all times for other speakers, they are not.

Most widely distinguished is the contrast between *e* and *ē*; for the other vowels, length is often used merely to distinguish particular homonyms in certain contexts. In this paper an attempt is made to note length in a maximal fashion: a vowel is marked long in a word if it ever occurs long in the speech of one of my informants or seems to be reliably marked in *Khun sacen* or in Yuncay I's dictionary.

Here are some common contrasts for each vowel:

i : ī	i 'tooth'	ī '2'
	<i>sicang</i> 'hunger'	<i>sīcang</i> 'mayor'
ey : ēy	<i>keylan</i> 'egg'	<i>kēycip</i> 'woman'
	<i>ceypi</i> 'ballot, lot'	<i>cēypi</i> 'swallow (bird)'
ay : āy	<i>say cip</i> 'new house'	<i>sāy cip</i> 'bird house'
	<i>tayk ey</i> 'at your house'	<i>tāykay</i> 'mostly, in general'
	<i>hay</i> 'sun; year'	<i>hāy</i> 'harm, damage'
oy : ōy	<i>toy yo</i> 'becomes'	<i>tōy yo</i> 'is hard'
	<i>soy</i> 'iron'	<i>sōy</i> '(vegetable) is tough, hard'
	<i>hoysang</i> 'reminiscence'	<i>hōysang</i> '(business) negotiations'
u : ū	<i>unhayng</i> 'bank'	<i>ūmsik</i> 'food'
	<i>Kulisuto</i> 'Christ'	<i>kūlim</i> 'picture'
	<i>ku tul</i> 'they'	<i>ku tūl</i> 'that uncultivated field'
e : ē	<i>keli</i> 'street'	<i>kēli</i> 'distance'
	<i>sem</i> 'rice-straw sack'	<i>sēm</i> 'island'
	<i>cenki</i> 'first term'	<i>cēnki</i> 'electricity'
a : ā	<i>mal</i> 'horse'	<i>māl</i> 'language'

	<i>pam</i> 'night'	<i>pām</i> 'chestnut'
	<i>na yo</i> 'occurs, appears'	<i>nā yo</i> 'gets better'
wu : wū	<i>nwun</i> 'eye'	<i>nwūn</i> 'snow'
	<i>kwul</i> 'oyster'	<i>kwūl</i> 'cave'
	<i>cwul</i> 'line, wire'	<i>cwūl</i> 'file, rasp'
o : ō	<i>kong</i> 'zero'	<i>kōng</i> 'ball'
	<i>ton</i> 'ton'	<i>tōn</i> 'money'
	<i>non</i> 'rice-paddy'	<i>nōnta</i> 'plays'

The distinctive length of Standard Korean corresponds to distinctive pitch or a combination of pitch and length in certain areas of Korea. In the province of South Kyengsang, e.g. Kimhay, there are three lexically distinctive pitch levels HIGH, MID, and LOW. (The high pitch sometimes has a slight fall, especially on a monosyllable in isolation.) In North Kyengsang, e.g. Antong, there are only two lexically distinctive pitches HIGH and LOW: The mid pitch of Kimhay is cognate with SHORT vowels in the low pitch of Antong, and the low pitch of Kimhay is cognate with LONG vowels in the low pitch of Antong. (Apparently there are no high-pitched long vowels in Antong.) Farther north, in South Hamkyeng, e.g. Hamhung, there is a distinction of HIGH and LOW pitch, but no cognate distinction of length; moreover, both mid and low pitches of Kimhay are cognate with the HIGH pitch of Hamhung, and the low pitch of Hamhung is cognate with the high pitch of Kimhay. This interesting switch is reminiscent of the two major type contrasts of lexical accent in Japanese dialects: the Kyoto and Tokyo types. Cf. the discussions by Haruhiko Kiindaiti in *Nihon hoogēn gaku* [Japanese dialectology] (Tokyo 1954) and by Teruo Hirayama in *Kyusyu hoogēn oñtyoo no keñkyuu* [Studies in the accent of Kyushu dialects] (Tokyo 1951). In each of the Korean dialects the situation is complicated by a certain amount of pitch sandhi (to be described in a separate paper); I am here referring to the 'basic' accents of the words. This distinctive pitch is not to be confused with the SENTENCE INTONATION of Standard Korean, described, for Seoul speech, in §17. Speakers from Seoul and from most of the North and West do not differentiate words by pitch alone. But many speakers from the South and East retain their native pitch distinctions even after they have adjusted their speech habits to the standard language quite well in other respects.

Below are a few examples to clarify the cognate relationship of pitch and length in the dialects. The first column lists the examples in their Standard forms. The other columns show the pitch and length for each example in each of the dialect types.

STANDARD	SEOUL	KIMHAY	ANTONG	HAMHUNG
mal 'horse'	short	high	high	low
pay 'pear'				
son 'guest'				
mal 'measure'	short	mid	low short	high
pay 'stomach; boat'				
son 'hand'				
māl 'words'	long	low	low long	high
pāy 'double'				
sōn 'loss'				

2.4.2. Disappearing *h*. The phoneme *h* freely drops between typically voiced phonemes (vowel, *y*, *w*, *m*, *n*, *ng*, *l*): *a(h)op* '9', *sīm-(h)i* 'extremely', *mān(h)i* 'lots', *sin(h)on* 'new marriage, honeymoon', *un(h)ayng* 'bank', *kyel(h)on* 'marriage', *pang(h)ak* 'school vacation', *annyeng (h)i* 'peacefully', *kō(h)yang* 'hometown', *kyo(h)wan* 'exchange', *sel(h)wa* 'story, tale', *in(h)yeng* 'doll', *um(h)yang* 'sound, noise'.

2.4.3. Disappearing *w*. The phoneme *w* freely drops after *p*, *ph*, *pp*, *m*, *wu*, or *o*: *sam(w)el* 'March', *sam (w)en* '3 Wen (monetary unit)', *kwū (w)en* '9 Wen', *ō(w)el* 'May', *cēm(w)en* 'clerk', *p(w)a yo* 'sees, looks', *pep(w)ang* 'pope', *m(w)e* 'what' [cf. §2.4.8], *ciph(w)ey* = *ciphoy* 'meeting' [cf. §2.4.4], *cham(w)ey* = *chamoy* 'melon' [cf. §2.4.4].

In sloppy speech, *w* sometimes disappears after other voiced sounds: *si(w)en hata* 'is cool', *tongmul(w)en* 'zoo', *chil(w)el* 'July', *cēng(w)el* 'January', *pyēng(w)en* 'hospital', *kong(w)en* 'park', *yen(hw)ey* = *yenho* 'annual meeting' [cf. §2.4.2, §2.4.4].

See the remarks on the notation of *wu* and *u*, §1.1.

2.4.4. The vowel *oy*. Most Koreans do not distinguish the anomalous vowel *oy* from *wey* (for some speakers, *way*). [On the confusion of *ey* and *ay*, see §2.5.] There are very few words with *wey*, and not many with *way*: *wēyn* 'why, what', *kwēy* 'box, case', *kwēyto* 'railroad track'; *wāy* 'why' (variant *wey*), *waykhong* 'peanuts' (the first syllable often confused with *ōy* 'foreign'), *kkway* 'extremely, quite', *insway* 'printing', and a few others.

2.4.5. The sequence *ui*. The orthographic sequence *ui* is usually pronounced *ū* in initial position, *i* in other positions. It is convenient to keep the orthographic notation (amended to *ū[i]*- and *-[u]i* to indicate pronunciation) as a way of showing that many morphemes have the alternating shapes *ū* and *i*: The first morph in *ū.kyen* 'opinion' and *ū.mi* 'meaning' belongs to the same morpheme as the last morph in *cwū.i* 'attention, caution' and *tong.i* 'being in agreement'. There are a few words in which the standard orthography has *ui* after a consonant, e.g. *hūi*- 'be white', *ttui*- 'gird, wear belt'. Since in inflection the shape of the morpheme is apparently always with *i* and never with *ū*, it seems best to write just *hī*- and *ttī*-.⁵ Similar cases are *kenn(u)-i*- the causative of *kennu*- 'cross over', *ss(u)-i*- the passive and causative of *ssu*- 'write', and *tt(u)-i*- the causative of *ttu*- 'separate, come apart'. [On passive and causative forms, see §15.]

The subordinating particle ('of') is usually spelled *ui*, but the Seoul pronunciation *ey* makes this particle homonymous with the particle of general location ('in, at, to').

2.4.6. Postvocalic *u*. Sequences of vowel + *u* are often pronounced with long vowel instead of *u*: *taum*, *tām* 'next, neighboring'; *maum*, *mām* 'soul, mind'; *cheum*, *chēm* 'for the first time'; *maul*, *māl* 'village', *keyuluta*, *kēyluta* 'is lazy'.

Since *h* drops readily between typically voiced sounds (§2.4.2), sequences of

⁵ But derivationally, some of these bases may behave as if ending in *u*. The regular infinitive for 'be white' is *hī.e* (or *hyē*, cf. §2.4.8), but in the base *he-ye.h*- 'be pale', the element *he* looks like an infinitive from a base **hu*-. However, the full form is probably *he(-)ye*, which requires a more radical explanation.

vowel + *h* + *u* are often reduced to a long vowel: *cōhumyen*, *cōumyen*, *cōmyen* 'if its good'; *nōhuna*, *nōuna*, *nōna* 'puts but'; *tāhuni*, *tāuni*, *tāni* 'since it arrives'. (Cf. §11.1.2, §11.3.)

2.4.7. Intercalated semivowels. The phoneme components *Y* and *W*, which occur coextensively in *i* (= *IY*), *ey* (= *EY*), *ay* (= *AY*), *wu* (= *IW*), *o* (= *EW*) [see Korean Phonemics], are in free variation overlapping when followed by another vowel. The word *pi* 'rain' + *os* 'clothes' gives *pi os* /pi[y]ot/ 'rain-gear' [on the basic *s*, see §7]. The base *chwu*- 'dance' + the infinitive morph *-e* gives *chwue* /chwu[w]e/. Because the semivocalic overlap is predictable within this limited environment, the sequences are considered not to include occurrences of the phonemes /y/ and /w/—the intercalated semivowels, when present, are simply ignored as free variants of the corresponding sequences *io*, *wue*, etc.

Some speakers distinguish words like *ki.yak* 'weakness of spirit' and *cwu.wi* 'surroundings' from the quasi-homonyms *ki.ak* 'instrumental music' and *cwu.i* 'principal, ism' by using a longer [y] and [w], and for these speakers, the phonemes /y/ and /w/ occur in words which are distinguished in this way. Other speakers, however, make no distinction between a *y* which is morphophonemically present (expected from our knowledge of other alternants of the morpheme—e.g. in *yak.ca* 'weakling' and *sā.wi* 'all around') and one which is simply the predictable lag in phase of a phoneme component. For these speakers, morphemes with a basic allomorph beginning with *y*- or *w*- have phonemically determined automatic alternants without the *y* or *w* when preceded by a front or rounded vowel, respectively. For such speakers *toyo* 'becomes' (AUTHORITATIVE style) is homonymous with *toy yo* 'becomes' (POLITE style).

For a maximally advantageous notation we can follow the rule of writing *y* and *w* when we know that they are present in the basic alternant of the morpheme. We write *chwuwe* 'is cold' but *chwue* 'dances' even though the two words usually sound alike, because other paradigmatic forms (*chwupko* 'is cold and', *chwuwumyen* 'if it is cold'; *chwuko* 'dances and', *chwumyen* 'if he dances') show us that the former base ends in a basic *w* but the latter in the vowel *wu* (cf. §11.1.3).

This variation extends to *wu* or *o* + the disappearing *h* of §2.4.2: *nō(h)a* 'puts' and *towa* 'helps' rime for many speakers.

2.4.8. Desyllabification of *i*, *wu*, and *o*. The combination *i* + vowel or *i* + *y* + vowel is often reduced to *y* + vowel. This is the only condition under which such combinations as *cy*, *chy*, *ccy*, and *sy*⁶ occur, and they are more often reduced by dropping the semivowel. The vowel is lengthened, if in the first syllable. This is also one of the two conditions in which the sequence *ty* occurs; the other is exemplified by *mōt yele* 'can't open' (variant *mōn nyele*, §9).^{6a} Here are some ex-

⁶ I have not considered certain recent loanwords such as *waisyassu* (variant *waisyaccu*, shortened variant *syassu*) 'shirt' taken from Japanese *waisyatu* 'shirt', a borrowing from English *white shirt*. (The Japanese shortening *syatu*, unlike its Korean counterpart, has the limited meaning 'undershirt'.) Many speakers reduce *sy* in such words to *s*, but others—more familiar with Japanese speech habits—retain the cluster.

^{6a} *Mat yangpan* 'eldest master' seems to be pronounced either /macangpan/ or /manyangpan/.

amples: *kasici yo*, *kasici- yo*, *kasici- o* 'let's go'; *kitalisio*, *kitalisyo*, *kitaliso* 'wait!'; *cwusipsio*, *cwusipsyo*, *cwusipso* 'please give'; *ttie*, *ttiyē* 'wears (a belt)'; *phie*, *phyē* 'smokes; blooms'; *chie*, *chyē*, *chē* 'hits'; *kiek cca*, *kyēk cca* 'the letter K'. (See also §12.5.)

The sequences *wu* and *o* are often reduced to *w* before a vowel and to nothing before *w* + vowel, especially when the sequences are not immediately preceded by a pause: *manna cwue yo*, *manna cwe yo* 'does the favor of seeing (someone)'; *kimchi lul mayntule twuessey yo*, *kimchi lul mayntule twessey yo* 'got the kimchi made'; *il hanun tey towa cwuessey yo*, *il hanun tey twa cwessey yo* 'helped in the work'; *mue*, *mwe*, *me* [§2.4.3] 'what'.

This variation extends to words in which the *h* disappears [§2.4.2]: *phyo lul sa nō(h)a yo*, *phyo lul sa nwa yo* 'buys the tickets in advance'; *poki cō(h)a yo*, *poki cwa yo* 'is good-looking'.

2.4.9. Reduction of *wie*. The sequence *wie* is often replaced by *ōy*: *swie*, *sōy* 'rests'; *swiesse*, *sōysse* 'rested'; *sakwie*, *sakōy* 'gets acquainted'; *kkwie*, *kkōy* 'threads (needle), strings (beads)'; *kkwiesse*, *kkōysse* 'threaded, strung'. This *ōy* is often further replaced by *wey* (§2.4.4).

2.4.10. Vowel assimilation. We find a number of pairs of variants in which one member (usually the more common form) shows a fronted vowel either after *c(h)* or before a syllable which contains the phonemes *i* or *y*: *achim*, *achum* 'morning'; *ilcciki*, *ilccuki* 'early'; *ayki*, *aki* 'baby'; *teyli-*, *tayli-*, *tali-* 'take (someone) along'; *nayli-*, *nali-*, 'get down'; *yāyki*, *iaki* 'story, talk'; *meyki-*, *meki-* 'feed, make eat'; *tani-*, *tanni-*, *tayngni-* 'goes back and forth (regularly)'; *caymi*, *camī* 'fun'; *teyngi*, *tengi* 'lump'; *soyki-*, *soki-* 'cheat'; *cwiki-*, *cwuki-* 'kill'; *pey*, *pye* 'rice plant' (cf. §8). *Sōy-koki* 'beef' is probably an abbreviation of *so ui koki* 'meat of ox'. Less common is the substitution of *i* for *u* in attaching inflectional endings to bases ending in *s*, *ss*, *c*, or *ch*: *wusina* = *wusuna* 'laughs but', *issina* = *issuna* 'there is but', *chacina* = *chacuna* 'finds but', *cochina* = *cochuna* 'follows but'. Somewhat more complicated are the variants for the combination *talk* 'chicken' + *al* 'egg': The standard form is *talk yal*, but the more common Seoul forms are *talk eyl*, *talk ayl*, and *talk yayl*. (The possibility of a form like **talk yeyl* is excluded by §8.)

2.5. Dialect variants. It is the intention of this paper to treat only the standard colloquial language, i.e. the speech of educated natives of Seoul. But certain variations which occur even within the speech of these persons can be labelled 'dialect variants'.

The widespread substitution of *wu* for *o* after a consonant (but not after *y*) is a characteristic of natives of the Seoul area, though it is condemned and resisted by many educated speakers. A number of everyday words and expressions, however, are so widely used in the *wu* variant rather than the historically more correct *o* form that they are accepted as standard even by Seoul speakers who resist the wholesale replacement of *o* by *wu* when it extends to less common words. Here are a few of the variants which have a fair respectability: *palwu* for *palo* 'right, directly', *halwu* for *halo* 'one day', *sikwul* for *sikol* 'country(side)', *cakkwu* for *cakko* 'constantly', *hakwu mālkwu* for *hako mālko* 'of course'. This

replacement seems to be strongly resisted by many speakers in other parts of the country to which Standard Korean has spread.

Throughout much of the southern part of Korea the vowel *ay* is distinguished from *ey* poorly, if at all, especially when the syllable is not preceded by pause. There are only a few common contrasts such as *nay* 'my': *ney* 'your', *kāy* 'dog': *kēy* 'crab'. It is hard to decide whether one is hearing *katta -y* (1) 'they say he went' (2) 'I tell you he went = he DID go' [both intimate style quotative statements], or *kattey* 'it has been observed that he went; I noticed he had gone' [familiar style retrospective statement]; *ēpsey yo* (= *ēpse yo*) 'there aren't any' or *ēpsay yo* 'eliminates, gets rid of'. And many speakers seem to distinguish *tāykay* 'mostly' from *tayk ey* 'at your house' more by the length of the first vowel than by the quality of the second. As a result of this confusion, there are some hypercorrections and hybrid forms, e.g. *yēyki* for *yāyki* 'story' (literary variant *iaki*). The related confusion between *oy* (= *wey*) and *way* is discussed in §2.4.4.

The vowels *u* and *e* are not phonemically distinct throughout much of southern and eastern Korea, and this has led to some confusion among the grammarians, many of whom are native speakers of the dialects of those areas; cf. fn. 23. Some grammarians attempt to maintain an artificial distinction of *-tu-* and *-te-* in the retrospective constructions *-tun-*, *-tuni-*, *-tun ya* (*-tun i*), etc., paralleling semantic distinctions which are correlated with context. The dialect of Kimhay probably has a minimum of vowel distinctions; there we find six vowels, which structure like this:

	FRONT	BACK UNROUNDED	BACK ROUNDED
HIGH	i	u/e	wu
LOW	ey	a	o

The actual quality of the *u/e* vowel varies from high to high-mid with the environment, as does the mid to low-mid quality of *ey* and *o*. The vowel *ey* is cognate with Standard Korean *ey*, *ay*, *oy*, and *wey*. The vowel *i* is cognate with both *i* and *wi*.

There are a number of individual cases in which *ey* varies with *i*: *ttey-*, *tti-* 'separate'; *cēy il*, *cī il* 'number 1; most'; *yeyppu-*, *ippu-* 'be pretty'. And the word for 'where' is heard as *eti* (Seoul), *etey* (which jibes with other occurrences of the morpheme *tey* 'place'), and *etay*. The word *meych* 'how many' is often spelled *myech*; this is apparently a dialect variant. The word *wu* 'above' has a common variant *wi*.

There are dialect variants of *yey* for *ye* (and *yey* is reduced to *ey* when not preceded by pause, §8): *yeyl eyses* for *yel yeses* '16', *yeyl ilkop* for *yel ilkop* '17', *yeyl eytel(p)* for *yel yetel(p)* '18'.

The sequences *hy* and *hi* are often replaced by *s* and *si* in dialect variants: *se* for *hye* 'tongue', *sim* for *him* 'strength'.

3. Tactical background. On a basis of internal structure, the words of Korean clearly fall into two classes—inflected and uninflected. Each inflected word contains the immediate constituents BASE + ENDING. The bases belong to a large but limited class of constituents which do not occur except attached to one of a much smaller class of endings, which in turn do not occur except attached to

some base.⁷ On the other hand, there is no such restriction on the occurrence of uninflected words.

My analysis differs at this point from that of those native grammarians who properly distinguish noun + particle from verb + ending, in two respects:

1. If I find the same shape (or the same alternation of shapes) used as a particle in divergent environments, and therefore in divergent meanings, I still consider the shape to be one and the same particle, with the differences of usage and meaning conditioned by the surrounding elements. 'Semantic similarity' does not trouble me, since purely grammatical meanings are, ultimately, just a reflection of distributional arrangement, and we cannot allow ourselves to be misled by criteria of 'similarity' derived from vantage points outside the structure of the particular language we are investigating. So, on the basis of completely complementary distribution, I identify the *man* of *yeki man* 'this place only' with the *man* of *haci man* and *hamnita man* 'does but'. (The English semantic overlap of 'but' and 'only' is but a happy coincidence.) And, on the same basis, I identify the *ka* of *yeki ka* 'this place (as subject)' with the *ka* of *ota ka* 'comes and/but then' and *watta ka* 'came and/but then'; the *se* of *yeki se* and *yeki ey se* 'at/from this place' with the *se* of *hay se* 'does and (so)'; the *to* of *yeki to* 'even/also this place' with the *to* of *hay to* 'even doing' and of *haki to* (*ha-*) 'indeed doing'.

2. I make a rigorous distinction between ENDINGS and ENDINGS + PARTICLES. To distinguish whether a final element at the end of an inflected word is a particle or a part of the ending itself, the following oversimplified rule can be applied: if we still have a freely occurring form when the element in question is removed, then that element is a particle. When we remove the *to* of *ha.ki.to* 'indeed doing' we still have *ha.ki*, a freely occurring form (as in *haki silhe* 'hates to do'); when we remove the final *se* from *ha.s.e.se* 'someone honored does and (so)', we still have *ha.s.e*, which occurs as a complete sentence in the intimate style with the meaning 'someone honored does'; when we remove the *la* of *mek.e.la* 'eat!' or the *ya* of *mek.e.ya* 'only if someone eats', we still have *mek.e*, which is used as the intimate-style sentence 'someone eats'; when we remove the *ulo* of *chwu.m.ulo* 'dances therefore' we still have the word *chwu.m* 'dance' as in *chwum chwunta* 'dances (a dance)'. But if we remove the *-ki* of *ha.ki*, the *-se* of *ha.s.e*, the *-e* of *mek.e*, or the *-m* of *chwu.m*, we are left with the bare bases *ha-*, *mek-*, and *chwu-* which do not occur freely (or in isolation), but only attached to one of the limited set of endings analyzed in §12. By my criterion, this indicates that *to*, *se*, *la*, and *ya* are particles. Of these, *la* and *ya* occur only after the infinitive ending; *se* occurs after the infinitive and the extended conjunctive (= conditional; *-umyen se* 'while does') and also after nouns and after the particle *ey*; *to* occurs after the infinitive, the nominative (*-ki*), and also after nouns and a great many particles and particle sequences (including *se* and *ey se*).

⁷ Apparent exceptions are a few derivationally related nouns like *sin* 'shoe' (*sin-* 'put on feet'), *nam* 'other' (*nam-* 'remain'), *kamul* 'drought' (*kamu-l* 'go without rain'), and occurrences of the zero abbreviation or alternation of the bases *ha-* 'does; is' and the copula *i-* 'equals', which leave endings standing as if alone.

I also differ from the Korean grammarians in insisting on a rigorous focus of differential meaning. It is true that *chwum ulo* can have two translation-meanings 'with (as) the dancing' and 'because of the dancing'; but this is not an indication that the one construction differs formally from the other. The difference of meaning is entirely concentrated in the particle *ulo*, which has a wide range of meanings depending on the rest of the words in the sentence. Compare *ku kkatakw ulo*, which can mean both 'with (as) that reason' and 'because of that reason'. And note again the happy coincidence of the double meaning of the English word *as*: 1. *As (= While) we danced, we commented on the music*; 2. *As (= Since) we danced, we decided to go to a dance*.

3.1. Uninflected words. Uninflected words may be divided into three main classes according to (exclusive, permissive, or typical) external environments: nouns, particles, and interjections.

A NOUN occurs in at least one of four environments: (1) before a particle, (2) before the copula *i-*, (3) before a noun or noun phrase which it modifies, (4) in absolute constructions (i.e. neither modifying the following word or phrase nor immediately restricted by it). In positions 3 and 4, nouns are frequently followed by pause; in positions 1 and 2, never.

All PARTICLES occur sometimes before pause, but it is unusual for a pause to occur before a particle. Most particles occur sometimes (1) after a noun. Some particles occur also (2) after various inflected categories; a few seem limited to one or two such categories. A particle particularizes the grammatical relationship between the constituent of which it is the final immediate constituent and the rest of the sentence, or (if sentence-final) the relation of the sentence to the total discourse. There are about 35 of these particles, of which a number are colloquial synonyms of other particles.

An INTERJECTION occurs typically by itself as a minor sentence, often with the exclamation-point intonation (§17) and special voice qualifiers.

There are numerous subcategories of nouns; the most important are briefly defined below. A noun not a member of a particular subcategory is just a noun.

A PRE-NOUN occurs typically before a noun or noun phrase which it modifies: *i* 'this', *ku* 'that', *ce* 'that over there', *say* 'new'. Some pre-nouns perhaps occur exclusively in this environment: *ches* 'first', *cey* '-th' (ordinalizer), *ku-kkacis* 'such a', *on* 'entire, whole'.

A POST-NOUN occurs exclusively or typically after a noun which modifies it: *tul* 'group', *nēy* 'group of people', *cil* 'act, behaviour, way of doing', *nim* 'honored person', *ccay* '-th' (ordinalizer). A COUNTER is a sub-class of post-noun which occurs only after a numeral: *chayk han kwen* 'one book', *kāy han mali* 'one dog', *han si* 'one o'clock', *il wen* 'one Wen', *chinkwu han salam* 'a friend' (cf. ordinary noun *salam* 'person').

A POST-MODIFIER occurs after the modifier categories of inflected words (§12.4) typically, exclusively, or exclusively in a clearly distinct meaning. Typically: *chay* 'the original state'. Exclusively: *ci* 'uncertain fact, whether; state of, since' [etymologically and perhaps morphemically related to the suspensive ending *-ci*, §12.2, §12.13], *ka* 'question', *swulok* '(to the full) extent (that); the

more . . . the more', *twung* 'one of two conflicting or opposite appearances', *tul* 'conceded fact' (in *-un tul* 'granted that it be'), *ya* 'question'; *tus* 'feeling, appearance', *ak* 'one of two alternating states' (*-ul ak* . . . *-ul ak*), *chey* (variant *chek*) 'pretense'. Exclusively in a clearly distinct meaning: *cwul* 'likely fact; way, ability' (in other environments 'queue, line'), *il* 'definite fact' ('business, job, work'), *kes* 'fact, tentative or likely fact' ('thing, one'), *pa* 'fact, tentative or likely fact' ('thing, one'), *swu* 'possibility' ('case, circumstance'), *tey* 'circumstance, event' ('place'), *they* 'likelihood, intention, expectation' (variant *the*; as a noun 'place, site'). *Tus*, *ak*, and *chay* are also descriptive verbal nouns; *chey* (*chek*) is also a processive verbal noun. They are subclassed under those categories, which are not in conflict with these, since they are independently arrived at.

A NUMERAL is a word which typically takes the place of *meych* in reply to a question such as *meych in ya* 'how many (much) is it?' and which occurs before counters: *hana* 'one', *twues* 'about 2', *yeles* 'a large number', *chen* '1000', etc. Numerals occur in all four noun positions; some of them have shortened alternant shapes when in the modifying position, but not before the ordinalizing post-noun *ccay* '-th' (§16).

An ADVERB is a noun which occurs typically (for a few words like *kkok* 'for sure' perhaps exclusively) in absolute position: *cal* 'well', *tā* 'all', *phek* 'quite', *cham* 'real' (cf. interjection *cham* 'oh; uh'), *acwu* 'extremely', *mōs* 'can't'.

A VERBAL NOUN occurs typically before a postnominal verb (§3.2). Bound verbal nouns occur always preceding the verb base; quasi-bound verbal nouns are only occasionally separated from the verb by the particle of reinforced emphasis *to* or the particle of reduced emphasis *un/nun*. A PRE-SEPARABLE verbal noun occurs in construction with a SEPARABLE postnominal verb, a PRE-INSEPARABLE verbal noun occurs in construction with an INSEPARABLE postnominal verb. There are TRANSITIVE and INTRANSITIVE verbal nouns, paralleling transitive and intransitive verbs; among the intransitive verbal nouns, some are DESCRIPTIVE VERBAL NOUNS (or 'adjectival nouns'), paralleling descriptive verbs (§3.2).

3.2. Inflected words. Each inflected word or VERB may be classed as TRANSITIVE or INTRANSITIVE. A verb which occurs sometimes preceded by a direct object is transitive. All transitive verbs are also processive (see below) so that the opposing category of DESCRIPTIVE is relevant only for intransitive verbs.

Among transitive verbs some are LIMITED TRANSITIVE VERBS. The direct object of such a verb is limited to (a) a noun showing a goal—*hakkyo lul kanta* 'goes to school', (b) a noun showing purpose—*kwukyeng ul kanta* 'goes to see', (c) the substantive form of the same verb (§12.14) as a kind of objective complement—*cam ul canta* 'sleeps', *chrum ul chwunta* 'dances'; (d) a time expression—*sahul ul onta* 'comes for 3 days', (e) an expression of order or times—*ches ccay lul kanta* 'goes first', (f) a direction—*kang ul kenne kanta* 'goes across the river', and (g) occasionally in unusual paraphrases such as *swul ul chwi-hanta* for *swul ey chwi-hanta* 'gets drunk on liquor'. We might label these QUASI-INTRANSITIVE verbs.

A CAUSATIVE verb is a transitive verb which is a member of a pair of verbs which are related in shape; the other member of the pair is active (either transitive or intransitive, and if intransitive either processive or descriptive). The

causative member differs from the active by the presence of a causative-forming suffix, which has a number of different shapes (§15).

A verb is INTRANSITIVE if it is never preceded by a direct object, e.g. *nuc* 'be late', *cwuk* 'die', *anc* 'sit down'. Each intransitive verb falls into one of the following classes. A PROCESSIVE verb lacks the category of plain indicative assertive *-ta* (replacing it by the processive assertive *-nun.ta/-n.ta*) except in literary Korean and certain literary clichés in the colloquial. All transitive verbs are processive, but some intransitive verbs are DESCRIPTIVE. A descriptive verb lacks the following paradigmatic forms: subjunctive forms (suggestion, command), processive forms (processive modifier, processive assertive, processive adjunctive). The COPULA is a descriptive verb which never occurs after pause; it has the base *i-* (variant *ilo-*) after a consonant, and zero (variant *-lo-*) after a vowel.

There are at least seven bases which underly complete paradigms as both processive and descriptive verbs: *ha-* 'do; be', *kēy-si-* 'exist, stay' (honorific), *nuc* 'be late', *nās-/nā-* 'get better; be better', *palk-* 'get bright; be bright', *khu-* 'get big; be big', and *kwut-* 'get hard; be hard'.

The intransitive verbs *iss-* 'exist, stay', *ēps-* 'not exist', and the past element *-ess-* etc. and the future element *-keyss-* (which are both derived from *iss-*) have all the processive forms EXCEPT the processive assertive. (In other words, for a plain-style statement it is *itta* not **innunta*, *ēpta* not **ēmnunta*; and it is *-etta*, *-keytta*.) All but *iss-* seem to lack subjunctive forms, and these are not common with *iss-*. Such verbs and bound elements can be called QUASI-PROCESSIVE in their behavior.

A PASSIVE verb is a member of a shape-related pair, of which the active member is a transitive and the passive member an intransitive processive verb. The passive member is marked by a suffix (§15).

An AUXILIARY verb is used in close juxtaposition with some other verb (which is usually in the INFINITIVE or GERUND form) and its meaning is somewhat different from that when it occurs elsewhere, if it does occur as an independent verb. There are about 18 processive auxiliary verbs and 6 descriptive ones. Some 13 of the processive auxiliaries and 5 of the descriptive ones are SEPARABLE: a particle sometimes intervenes between the auxiliary and the verb form with which it is used.

A POSTNOMINAL verb is a verb used in close juxtaposition with a verbal noun. SEPARABLE postnominal verbs (*ha-* 'be', *ha-* 'do', *ka-* 'go', *sikhi-* 'cause', *toy-* 'become') are sometimes separated from the verbal noun by a particle; INSEPARABLE postnominal verbs (*low-* 'be characterized by', *sulew-* 'is, gives the impression of being', *taw-* 'be like'; *keli-*, *tay-* 'behaves so as to give the impression of') occur only immediately following a verbal noun.

4. Systematic and automatic alternations. Alternants of a morpheme (or of a word) which are similar to each other in shape also have certain features of shape dissimilarity. The morphs *nyen*, *lyen* and *yen* in the expressions *i nyen* 'two years', *il lyen* 'one year', and *i yenhoy* 'this annual meeting' are similar in the sequence *yen* and dissimilar in the alternation of *n* with *l* and zero (§9).

The features of dissimilarity constitute either a systematic alternation—i.e. one paralleled by like alternation in a number of other morphemes or words (*cim nāl* 'housework', *hal lāl* 'things to do', *i il* 'this job'), or a non-systematic alternation—one which is unique or virtually unique. Systematic alternations are either automatic—predictable on either a phonemic or a grammatical level, or non-automatic. And automatic alternations are of two types: narrowly automatic, or phonemically determined; and widely automatic, or grammatically conditioned. Cf. *Lg.* 25.107 (1949), 27.527 (1951).

5. Phonemically determined alternations. In Korean, the principal cases of phonemically determined alternation occur when the alternants of a morpheme or word are sometimes bounded by pause or a consonant, and sometimes by a vowel.

When two syllables occur in uninterrupted sequence, a limited number of consonant clusters occur. These are shown in Table 1. The horizontal lines across the top shows the end of the prior syllable; the vertical line at the left shows the beginning of the following syllable. At a point of intersection, an expected sequence is shown in lower-case letters. An automatic replacement of a morphophonemically expected sequence is shown by SMALL CAPITALS. This table is a revision of Table 4, *Lg.* 27.527 (1951).

	-p	-t	-k	-m	-n	-ng	-l	-s
p-	PP	PP	kp	mp	np	ngp	lp	p
ph-	PH	PH	kph	mph	nph	ngph	lph	ph
pp-	PP	PP	kpp	mpp	npp	ngpp	lpp	pp
t-	pt	TT	kt	mt	nt	ngt	lt	t
th-	pth	TH	kth	mth	nth	ngth	lth	th
tt-	ptt	TT	ktt	mtt	ntt	ngtt	ltt	tt
s-	ps	SS	ks	ms	ns	ngs	ls	s
ss-	pss	SS	kss	mss	nss	ngss	lss	ss
c-	pc	CC	kc	mc	nc	ngc	lc	c
ch-	pch	CH	kch	mch	nch	ngch	lch	ch
cc-	pcc	CC	kcc	mcc	ncc	ngcc	lcc	cc
k-	pk	KK	KK	mk	nk	ngk	lk	k
kh-	pkh	KH	KH	mkh	nkh	ngkh	lkh	kh
kk-	pkk	KK	KK	mkk	nkk	ngkk	lkk	kk
h-	ph	TH	kh	mh	nh	ngh	lh	h
m-	MM	NM	NGM	mm	nm	ngm	lm	m
n-	MN	NN	NGN	mn	nn	ngn	LL	n
l-	MN	— ¹⁰	NGN	MN	NN	NGN	ll	l
—	p	t	k	m	n	ng	l	—

TABLE 1

⁸ I.e. a syllable ending with a vowel.

⁹ I.e. a syllable beginning with a vowel or with /y/ or /w/.

¹⁰ This possibility seems to be excluded within a word for historical reasons. Most morphs which begin with *l* are borrowings from Chinese, but no element borrowed from Chinese ends in *t* or any phoneme of which *t* is an automatic reflex—Ancient Chinese *-t* = Korean *-l*. Combinations like *ku-kkaci* 'such a' + *latio* 'radio' usually have an intervening pause. But note *meych (l)yang* = /meynnyang/ 'several taels'.

The following list gives examples of each automatic replacement. The first column lists the phonemic sequence, the second column shows the various morphophonemic sequences to which this sequence corresponds (other than the expected ones), the third column gives examples in a morphophonemic form (which corresponds in the main to the native spelling), and the fourth column shows examples which prove the basic form from other contexts, when this seems necessary. In the examples, a basic *s* is used for syllable-final basic *t*; the reason for this is discussed in §7 (fn. 12). Note that the sequences written as *pp*, *tt*, *ss*, *cc*, *kk*, are phonemically *pq*, *tq*, *sq*, *cq*, and *kq*, and this is the reason for their inclusion in the list. (The automatic alternation is the basis for our notation, see §1.1, §13.)

pp /pq/	-p.p- -t.p-	<i>sip pun</i> '10 minutes' <i>mōs pate</i> 'can't take'	<i>ī pun</i> '2 minutes' <i>mōs onta</i> 'can't come' (see fn. 12); <i>pate</i> 'takes'
	-p.pp- -t.pp-	<i>ahop ppun ita</i> 'it's just 9' <i>mōs ppale</i> 'can't launder'	<i>hana ppun ita</i> 'it's just 1' <i>ppale</i> 'launders'
ph	-p.ph- -t.ph-	<i>sip phal</i> '18' <i>mōs phanta</i> 'can't sell'	<i>sip</i> '10'; <i>phal</i> '8' <i>phanta</i> 'sells'
tt /tq/	-t.t- -t.tt-	<i>mōs tame</i> 'can't stuff' <i>mōs ttinta</i> 'can't float'	<i>tame</i> 'stuffs' <i>ttinta</i> 'floats'
th	-t.th-	<i>mōs thanta</i> 'can't ride'	<i>thanta</i> 'rides'
ss /sq/	-t.s- -t.ss-	<i>mōs santa</i> 'can't buy' <i>mōs ssanta</i> 'can't wrap'	<i>santa</i> 'buys' <i>ssanta</i> 'wraps'
cc /cq/	-t.c- -t.cc-	<i>mōs cice</i> 'can't bark' <i>mōs ccanta</i> 'can't twist'	<i>cice</i> 'barks' <i>ccanta</i> 'twists'
ch	-t.ch-	<i>mōs chace</i> 'can't find'	<i>chace</i> 'finds'
kk /kq/	-k.k- -t.k- -k.kk- -t.kk-	<i>hak.kyo</i> 'school' <i>mōs kanta</i> 'can't go' <i>Mikwuk kkaci</i> 'to America' <i>talun kos kkaci</i> 'to a different place'	<i>hak.ca</i> 'scholar'; <i>kyo.cang</i> 'principal' <i>kanta</i> 'goes' <i>Mikwuk</i> 'America'; <i>ceki kkaci</i> 'to there' <i>talun kos</i> 'a different place'
kh	-k.kh- -t.kh-	<i>mek khal</i> 'ink knife' <i>mōs khinta</i> 'can't turn on the lights'	<i>mek</i> 'Chinese ink'; <i>khal</i> 'knife' <i>khinta</i> 'turns on the lights'
mm	-p.m-	<i>sip mǎn</i> '100 000'	<i>sip</i> '10'; <i>mǎn</i> '10 000'
nm	-t.m-	<i>mōs māynta</i> 'can't tie'	<i>māynta</i> 'ties'
ngm	-k.m-	<i>yuk mǎn</i> '60,000'	<i>yuk</i> '6'
mn	-p.n- -p.l- -m.l-	<i>cip nanta</i> 'leaves the house' <i>pep.lyul</i> 'law' <i>yēm.lye</i> 'care, anxiety'	<i>cip</i> 'house' <i>pep</i> 'law'; <i>kyu.lyul</i> 'regulation' <i>ko.lye</i> 'consideration'; <i>sa.nyem</i> 'thinking' (§9)
nn	-t.n-	<i>mōs nāynta</i> 'can't pay'	<i>nāynta</i> 'pays'
ngn	-k.n- -k.l-	<i>nek.nek hata</i> 'is plenty' <i>tok.lip</i> 'independence'	<i>nek hata</i> 'is sufficient' <i>tok.chang</i> 'solo'; <i>sa.lip</i> 'privately established'
	-ng.l- -l.n- -n.l-	<i>kyeng.lo</i> 'course, process' <i>yeyis nal nolay</i> 'old-time song' <i>wen.lay</i> 'originally'	<i>kyeng.hēm</i> 'experience'; <i>to.lo</i> 'road' <i>nolay</i> 'song' <i>wen.ko</i> 'original manuscript'; <i>cay.lay</i> 'from before, accustomed'

6. Shape types. Most Korean morphs have the neat shape of one syllable or two syllables: *kama* 'pot', *ha.ko* 'doing', *i* 'this', *phal* '8', *pyēng* 'sickness', *sakwa*

'apple'. There are some longer morphs, though most polysyllabic elements are either recent loanwords or can be further analyzed on a derivational level. Some morphs, especially in the inflectional system, consist of only one consonant or a sequence of two consonants; these can be called subsyllabic: *ha.n* 'which (someone) did', *ss.e* 'writes; uses', *ka.ss.e* 'went'. Some morphs consist of no more than a phoneme component, and can be called subphonemic: *ha.y* /hɛ/ 'does'.

There are morphs which begin with each of the consonants and with each of the vowels. But I have found only one morph beginning with *ng*: *ngaci* 'offspring', in the three words *songaci* 'calf' (*so* 'cow'), *kangaci* 'puppy' (*kay* 'dog'), and *mangaci* 'colt' (*mal* 'horse'; for the dropped *l* see §16). This morph is obviously a historical variant of *aki* 'child'. It is perhaps relevant to note that the modern Korean script uses the same symbol for syllable-final *ng* and syllable-initial zero (i.e. vowel initial), so that this could be regarded as a case of orthographic (or dialect?) assimilation. Cf. I Sungnyeng 1954.

7. Syllable excess. There is also a limited group of morphemes each of which has a basic allomorph with a final consonant or group of consonants which occurs only at the beginning of a syllable. The extra-syllabic part of these allomorphs, which is heard only before certain vowels, can be called SYLLABLE EXCESS. Before pause or a consonant (and, in certain constructions, before a vowel), this excess alternates with (i.e. is replaced by) corresponding consonants which do occur at the end of a syllable. Before certain consonants, the excess replacement then undergoes further alternations, those phonemically determined for the consonant (§5). For example, *kaps* 'price' is reduced to the shape *kap* before pause or in phrases like *kap to* 'the price too', and the final *p* of this shape *kap* is then subject to the automatic alternations of any final *p*, so we hear *kam man* 'just the price'.

Before a vowel which (1) begins a particle, such as the subject particle *i* or the object particle *ul*, (2) begins the copula *i-*, or (3) begins an inflectional ending, such as the infinitive ending *-e* or the adversative ending *-una*, the full basic form is heard with its syllable excess: *kaps i* 'price (as subject)', *kaps ul* 'price (as object)', *kaps ita* 'it's the price'.

Before a vowel which does not begin a particle, the copula, or an inflectional ending, the usual treatment is to reduce the excess: *kap olumyen* 'when the price rises', *kap alki elyewe* 'it's hard to find out the price'. There are a few exceptions, e.g. *meych il* 'how many days', *yetelp hay* '8 years'. And in certain set combinations, both treatments are found: *kkoch ilum* or *kkot ilum* 'names of flowers', *mas isse* or *mat isse* 'is tasty'.

Below is a list of morph-final sequences which includes almost all the occurring types of syllable excess. Some of the types occur both with nouns and with verb bases; others only with one or the other. The bases as such, of course, do not occur before pause.¹¹ There are also bases ending in *h*, *lh*, *nh*, *w*, and *q*, for which see §11.1.2-5. For the inflectional bases ending in *l*, which show a different behavior from other elements ending in *l*, see §11.1.4. There are two archaic ex-

¹¹ *Ka* 'goes' has a zero alternant of the infinitive morpheme attached to the base (§12.5); for other apparent exceptions, see fn 7.

amples of excess *mk*: *namk* = *namu* 'tree', *kwumk* = *kwumeng* 'hole'. In the list, the first column shows the morph-final ending, the second column shows the phoneme to which the excess is reduced, the third column shows a noun example, and the fourth a base example.

p		<i>cip</i> 'house'	<i>cap-</i> 'catch'
t ¹²		<i>nāt</i> 'grain'	<i>lat-</i> 'close'
k		<i>mok</i> 'throat'	<i>mek-</i> 'eat'
l		<i>mal</i> 'horse'	<i>tul-</i> 'listen'
m		<i>kām</i> 'persimmon'	<i>kam-</i> 'shampoo'
n		<i>an</i> 'inside'	<i>sin-</i> 'wear on feet'
ng		<i>khong</i> 'soybean'	-
th ¹³	t	<i>path</i> 'field'	<i>math-</i> 'take charge of'
s	t	<i>os</i> 'clothes'	<i>wus-</i> 'laugh'
ss	t	-	<i>iss-</i> 'exist, stay'
c ¹⁴	t	<i>nac</i> 'daytime'	<i>chac-</i> 'hunt for'
ch ¹⁴	t	<i>kkoch</i> 'flower'	<i>coch-</i> 'follow'
ph	p	<i>aph</i> 'front'	<i>ciph-</i> 'lean on'
ps	p	<i>kaps</i> 'price'	<i>ēps-</i> 'not exist'
kh	k	<i>puekh</i> (<i>pek</i>) 'kitchen'	-
kk	k	<i>pakk</i> 'outside'	<i>kkakk-</i> 'cut, mow'
ks	k	<i>moks</i> 'share'	-
ls	l	<i>tols</i> 'cycle; post-natal year of age'	-
lth	l	-	<i>halth-</i> 'lick, taste'
lk	k, (l)	<i>talk</i> 'chicken'	<i>ilk-</i> 'read'
lm	m, (l)	-	<i>kwulm-</i> 'go without food'
lp	p, (l)	<i>yetelp</i> 'eight'	<i>pālp-</i> 'tread on'
lph	p, (l)	-	<i>ulph-</i> 'intone, chant'
nc	n	-	<i>anc-</i> 'sit down'

The reduction of the excess is as follows: A sequence of more than one consonant simplifies to one, by dropping all consonants in excess of the first, with the exception of the following cases involving *l* + consonant. The sequences *ls* and *lth* behave like most clusters, dropping all but the *l*. The sequence *lp* also be-

¹² Many speakers treat the few cases of nouns ending in a basic *t* as if this were a basic *s*. Even *tikut* 'the letter T' is pronounced with an *s* by most speakers when it is followed by, say, the subject particle *i*. (But the orthography writes *t* for this and for a few other nouns.) The word *mōs* 'not; not possibly', used in the examples of §5, could be considered as ending in a basic *t* as far as the adverb itself is concerned (since this never occurs in a position to show a basic *s*), but the morpheme occurs also in the noun *calmōs* 'mistake' with a basic *s*, and perhaps partly for this reason the present orthography writes it with an *s*. Also arbitrary is the final *s* in the pre-nouns *yēys* 'of yore', *ches* 'first', and *hes* 'empty', and in the verb prefixes *tes-*, *pis-*, *es-*, *yes-*, and *cis-*.

¹³ In Seoul *th* + *i* (or *t* + *hi*, §12.15) is regularly replaced by *chi*: *pach ita* for *path ita* 'it's a field' but *path ey* 'in the field'; *kochi-* for *kot-hi-* 'repair, correct', the causative of *kot-* 'be straight'. In a similar way, *t* + *i* = *ci*: *kwuci* for *kwut-i* 'firmly' but *kwut-e* 'is firm'; *haytoci* for *hay-tot-i* 'sunrise' but *hay ka tot-a* 'the sun rises'. [The suffix *-i* is discussed in §12.15.]

¹⁴ Many southern speakers treat final *c*, *ch*, and *th* as if *s*: *nas ey* for *nac ey* 'in the daytime', *kkos i* for *kkoch i* 'the flower (as subject)', *pas i* for *pach i* for *path i* 'the field (as subject)'.

have this way for nouns. Noun-final *lk* reduces to *k*. For verb bases, the sequences *lk*, *lm*, *lp* and *lph* show both types of behavior as variants: treating the *l* as excess (the standard variant) or treating the other consonant or consonants as excess instead. In overprecise speech, a theoretically dropped *l* sometimes appears, giving anomalous clusters like *lpk*, *lkt*, e.g. *talk to* for *tak to* 'the chicken also'. Base-final *lk* (e.g. *ilk* 'read') is most commonly treated in the standard way (dropping the *l*) except when attached to endings beginning with *k*, where the non-standard treatment seems more widespread: *il.kko* (gerund), *il.kki* (nominal). [For the reinforced *k*, see §11.1.1; note that these forms are NOT to be analyzed *ilk.ko* and *ilk.ki* despite the temptation afforded by the native orthography.]

After dropping any excess, if the remaining consonant is not an occurring syllable-final one (i.e. is other than *p t k l m n ng*) or if it is an *l* which is the last phoneme of a consonant base (see §11.1.4), but not an *l* reduced from a cluster, it is treated as the phoneme *t*.

Here is a fairly complete list of examples for each extrasyllabic final. But instead of *s*, for which there are a great many examples (as there are for *p*, *k*, *m*, *n*, *ng*, *l*), those examples ending in a basic *t* are listed, since the number is much smaller. Each list is alphabetical, but all nouns are grouped together at the end, after the bases.

t *ēl*- 'obtain', *ket*- 'hoist', *kot*- 'be straight', *kwut*- 'be hard, firm', *mit*- 'trust, believe in', *mot*- 'gather up', *mut*- 'bury', *mut*- 'stain, color', *pat*- 'receive, get, take', *pet*- 'stretch out (like a road)', *ppet*- 'extend, stretch out (an arm or leg)', *ssoi*- 'pour out', *tat*- 'close', *tit*- 'step on' (shortened variant of *titi*-), *tot*- 'sprout, bloom', *tot*- '(heavenly body) rise', *ttut*- 'bite, snatch, graze', *kot* 'immediate, direct; to wit' (derived from *kot*- 'be straight'), *mat* 'senior, eldest', *nāt* 'grain'.

th *cith*- '(liquid) be thick, (color) be dark', *huth*- 'get dispersed, scatter out', *kath*- 'be similar, like; be together', *math*- 'take charge of', *math*- 'smell, sniff (something)', *path*- 'sift, drain', *path*- '(liquid) dry up', *payth*- 'spit out', *puluth*- (shortened variant of *puluthu*-) 'get swollen', *puth*- 'stick, be attached', *yeth*- (variant *yath*-) 'be shallow'; *hoth* 'single', *keth* 'surface, shell', *kkuth* 'end', *kyeth* 'side', *melimath* 'head (of bed or grave)' (from *meli* 'head' + *math*- 'take charge of'), *mith* 'bottom, underside', *muth* 'land, shore', *nāth* 'piece, unit', *pakkath* 'outside', *path* 'dry cultivated field, garden', *phath* 'kind of red grain', *pith* (*pich*, *pyeth*) 'sunlight', *sath* 'crotch', *soth* 'pot', *swuth* 'quantity', *toth* 'boar' (archaic).

ss *iss*- 'exist, stay', *-ess*- etc. (past marker), *-keyss*- etc. (future marker).

c *aykkuc*- 'be undeservedly misfortunate', *cac*- '(wind) ease up, calm down', *cac*- 'be frequent, incessant', *cac*- (*cec*-) 'lean back', *cec*- 'get wet', *cic*- 'bark, bay', *ccic*- 'tear something', *chac*- 'look for, find', *ic*- 'forget', *kac*- 'be prepared' [rare, except in causative *kac.hwu*-, spelled *kac.chwu*- 'make ready'], *kac*- 'possess' (shortened variant of *kaci*-), *kkoc*- 'insert, put in', *kkwucic*- 'scold (a child)', *kwuc*- '(weather) be threatening', *kwuc*- 'get blinded', *mac*- 'meet, contact; get hit', *mac*- 'be suitable, appropriate', *maye*- 'bind, tie', *nac*- 'be low', *nuc*- 'be late', *peluc*- 'spread something out', *pich*- 'brew, ferment, make', *pulucic*- 'cry out, shout' (*pulu*- 'call' + *cic*- 'bark'); *cec* 'milk', *nac* 'daytime', *ōn-kac* 'all kinds' (shortened variant of *ōn kaci*), *pic* 'debt'.

ch *coch*- 'follow', *ccoch*- 'pursue', *mich*- 'attain, reach' (shortened variant of *michi*-); *kach* 'skin, hide', *kkoch* 'flower', *meych* (*myech*) 'how much, how many', *mich* 'and' (literary), *nach* 'face', *pich* (*pyeth*, *pith*) 'sunlight', *pich* 'color, mark', *swuch* 'charcoal', *tach* (*tech*) 'anchor', *tech* 'small trap, snare', *toch* 'sail', *wuch* (*och*) 'lacquer', *yuch* (name of a Korean game).

ph *ciph*- 'lean (hands) on, feel (pulse)', *ēph*- 'overthrow' [rare, except in *twicipe ēph*- 'turn inside out, upside down'], *kaph*- 'reward with, repay with', *kiph*- 'be deep', *noph*- 'be high', *siph*- 'be inclined toward, desirous of', *teph*- 'cover with, use as cover', *tu-noph*- 'be lofty'; *aph* 'front', *ciph* 'straw', *hēngkeph* (*hēnkeph*) 'piece of cloth', *iph* 'leaf', *muleph* 'knee', *nuph* 'marsh, swamp', *seph* 'firewood', *swuph* 'forest', *yeph* 'side, flank'.

ps *ēps*- 'be non-existent' and descriptive bases derived from it: *ka-y.ēps*- 'be pitiful', *mayk.ēps*- 'be despondent', *pucil.ēps*- 'be trivial, silly', *sang.ēps*- 'be irrational, preposterous', *sil.ēps*- 'be frivolous, unsubstantial', *silum.ēps*- 'be absent-minded, vacant', *yel.ēps*- 'be cowardly, timid'; *kaps* 'price'.

kh *puekh* (*pekh*, *pek*) 'kitchen', *nyekh*¹⁵ 'direction'.

kk *kkakk*- 'cut, shave, pare', *kkekk*- 'break off', *kyekk*- 'experience, undergo', *mukk*- 'make into a bundle', *nakk*- 'fish', *pokk*- 'roast', *sekk*- 'mix something', *sokk*- 'weed out', *takk*- 'polish', *tekk*- 'get dirty, rusty', *yekk*- 'knit, weave, braid'; *pakk* 'outside'.

ks *moks* 'portion', *neks* 'spirit', *saks* 'charge, fare', *seks* 'a sudden feeling (as of anger)'.

ls *kols* 'path of origin', *ols* 'compensation, reparation', *tols* 'cycle, postnatal year of age'.

lth *halth*- 'lick, taste', *hwulth*- 'tear off something stuck to surface, rinse out something stuck inside a bowl'.

lk *elk*- 'wrap, tie up, fasten', *elk*- 'get pockmarked, pitted', *ilk*- 'read', *kalk*- 'scratch with sharp point', *kulk*- 'scratch', *kwulk*- 'be big and long, big and round', *malk*- 'be clear', *mulk*- 'be thin, watery', *nalk*- 'look old, worn-out', *nulk*- 'be old', *olk*- 'snare, trap', *palk*- 'dawn, get bright', *palk*- 'be bright', *ppulk*- 'be very red', *pulk*- 'be red'; *chilk* 'arrowroot; striped', *hulk* 'earth, soil', *katalk* (= *katak*) 'strip, piece', *kkatalk* 'reason', *salk* 'wildcat, lynx', *talk* 'chicken'.^{15a}

lm *celm*- 'be young', *cilm*- 'bundle up to carry', *kolm*- 'have pus form', *kwulm*- 'go without food', *pālm*- 'measure off by arms; guess', *salm*- 'boil', *talm*- 'resemble', *olm*- 'move; be infected by, catch'. Also, all substantives from L-extending vowel bases (§§11.2.1, 12.14), such as *salm* 'life' and *alm* 'knowledge'.

lp *ccalp*- (*ccelp*-) 'be short, fine', *nelp*- 'be wide', *pālp*- 'tread on', *ttelp*- 'be astringent', *yelp*- (*yalp*-) 'be thin, faint, light'; *yetelp* (*yetel*) '8'.

lph *ulph*- 'intone, chant', *aytalph*- 'feel pity'.

nc *anc*- 'sit down', *enc*- 'place, put up or on' and derivative *kki.enc*- 'shower oneself'.

Not included in the list are the names for letters of the Korean alphabet. Each name with an 'unusual' final has a common variant: *tikut* (*tikus*) 'the letter ㅌ', *thiuth* (*thius*) 'the letter ㅊ', *chiuch* (*chius*) 'the letter ㅌ', *phiuph* (*phiup*) 'the letter ㅍ', *khiukh* (*khiuk*) 'the letter ㅋ'. There is also *hiuh*, the only case of noun-final *h*—to be treated as /t/ before pause or consonant, as /h/ before the copula or a particle beginning with a vowel (cf. §11.1.2 and §16); this word nearly always receives the variant treatment represented by the basic shape *hius*. Verb bases with final *-lph*- all have a semilitary flavor and seem to be abbreviations (historical and/or descriptive) from vowel bases ending in *-lphu*-; an example is *kotalph*-, a literary variant of *kotalphu*- 'be tired'.

Some of the nouns in the list are of rather limited occurrence. From the data

¹⁵ *Nyekh* is a post-noun (§3.1), the only examples of which involve various other alternations: *saypyeng nyekh* 'at dawn' (*saypyek* 'dawn', §5); *alayn nyekh* 'lower part; leeward' (*alay* 'underside', §14); *win nyekh* 'upper part' (*wi*, *wu* 'topside', §14), *nal ssayl lyekh* 'at dawn' (*nal i sayl* 'of which day is to break', §5, §9). I suspect the etymological presence of the same morpheme in *cenyek* 'evening'; *ce* is probably to be identified with the infinitive of *ci*- 'incline; (sun) set'. Cf. *hay cil lyekh* 'at sunset' (*hay ka cil* 'of which the sun is to set').

^{15a} Yuncay I's dictionary also lists the bound pre-separable descriptive verbal noun *wulk* (*ha-ta*) '(be) irritable', but I am unable to find evidence that the *l* is ever pronounced. The spelling is perhaps historical.

available in the standard language alone, we would not know whether the basic shape of the word for 'piece, unit' was *nāth* or *nāch*; either would give the results we find in *nāth tōn* /na(a)tqo(o)n/ 'small change' and *nāth-nath-i* /na(a)nnachi/ 'one by one' (fn. 13). But outside Seoul, the last example is frequently heard as /na(a)nnathi/. The same difficulty would arise for *hoth* 'single' if it were not for the one case of *hoth ulo toytta* 'is made of a single sheet'; in Seoul *hoth ita* 'it is single' is pronounced /hochita/ (fn. 13). This morpheme probably has etymological ties with the morpheme *hon* ~ *hol* found in *honca* 'by oneself', *hol al* 'unfertilized egg', *hol soli* 'vowel', *hol emi* 'widow', and *hol api* 'widower'. But *hoth ulo* 'singly' contrasts with *hol lo* 'alone'. My informants use the morpheme *nāt* 'grain' only in expressions like *nāt al* 'grain' and *nāt koksik* 'grain'; it would be possible to consider these as occurrences of the morpheme *nāth* 'piece, unit', since the alternation is quite regular. But the dictionaries carry *nāt* as a separate noun, an 'abbreviation' of *nat al*, and perhaps this represents the usage of some people.

From the Seoul example *meli swuth i māntha* 'has lots of hair on his head' we would not know that *swuth* 'quantity' has a final *th* since this is pronounced *ch* before *i* (fn. 13); but we are correctly cued by the example *meli swuth ul chinta* 'thins his hair out'.

The word *ols* seems to be an archaic and dialect variant for *tāysang* 'compensation'. Here are examples of a few of the other words of limited occurrence: *MOKS i cēkta* 'my share is small'; *han TOLS ita* 'it is one year (anniversary)'; *MAT ulo natta* 'he was born eldest', *MAT ita* /macita/ (fn. 13) 'he is the eldest', *MAT atul* 'eldest son'; *NEKS i ēpsi* 'absentmindedly'; *SAKS i ssata* 'the wages are low'; *SEKS i sake* 'his rage subsides'; *mul KKOLS i kiphe* 'the water channel is deep'.

Here are a few examples to illustrate the reduction of syllable excess in various environments. Each item is given first in morphophonemic form, then in quasi-phonemic form (i.e. phonemic, given the correspondences between the phonemic system and our romanization), followed by a translation.

os an /otan/ 'in the clothes'
ches atul /chetatul/ 'first son'
hes wusum /hetwusum/ 'empty smile'
cec emeni /cetemeni/ 'wet-nurse'
path alay /patalay/ 'below the field'
path wu /patwu/ 'on the field'
muluph wi /mulupwi/ or /mulupi/ (§2.4.3) 'on the knees'
kkoch ahop songi /kkotahopsongi/ '9 flowers'
puekh an /puekan/ 'in the kitchen'
neks ēpsi /nekēpsi/ 'absentmindedly'
tols an ey /tolaney/ 'within the first year of life'
kkuth ani -ta /kkutanita/ 'is not the end'
kolm-ki- /komki-/ 'bring to a head' [causative of *kolm-* 'come to a head']
palp-hi- /palphi-/ 'get trod on' [passive of *palp-* 'tread on']
sath-sath-i /sassachi/ (fn. 13) 'in every corner; exhaustively'
kaps-ci- /kapci-/ 'be of value'
kaps ēps- /kapēps-/ 'be of no value'
noph-talah- /noptalah-/ 'be sort of tall' (§11.3)

nelp-talah- /nelttalah-/ 'be sort of wide' (§11.3)

kwulk-talah- /kwuktalah-/ or /kwulttalah-/ 'be sort of thick' (§11.3)

8. Treatment of *yey*. The sequence *yey* does not occur except after pause; in other positions it is automatically replaced by *ey*. Compare *khun* (PAUSE) *yēypaytang* with *khun ēypaytang* 'a big church'. The sequence *ey* itself begins the basic form of very few words (e.g. *eywu-* 'surround', *eyi-* 'cut', and a number of recent loanwords), so this sequence is infrequent after pause.

In certain morphs of Chinese origin, the native orthography writes *phyey* for *phey* as in *phēy* 'lungs', *hyey* for *hey* as in *hēy.seng* 'comet' and *myey* for *mey*, the only example of which is the morph *mēy* 'sleeve' in the uncommon words *ū[i].mey* 'sleeve', *mēy.kwu* 'sleeve opening', *yen.mey* '(in) company', and *pun.mēy* 'parting (of people)'. A number of morphs beginning with *key* are distinguished in the native orthography by the spelling *kyey*, e.g. *kēy.si-* 'stay' (honorific), *kēy.si* 'notice, bulletin,' but there seems to be no phonemic or morphophonemic basis for this. We may regard the spellings *phyey*, *hyey*, and *kyey* as purely historical.

Because of the automatic alternation of *yey* with *ey*, morphemes with the basic shape *lyey* (e.g. the common one meaning 'ceremony, rite') never actually occur in that shape at all; it is a fictive form based on the occurring alternants *ley* (as in *sil.ley* 'discourtesy' and *kō.ley* 'ancient rites') and *yey* (as in *yēy.pay* 'worship').

In addition to word variants like *ēypaytang* for *yēypaytang*—which have to be caught on the fly and can be ignored for most purposes, since usually the given sequence is freely interrupted by pause—we find the alternation of *ey* and *yey* in the occurrence of morphemes with the basic shape *yēy*, e.g. that one meaning 'esthetics, art' which occurs initially in *yēy.swul* 'esthetic techniques' and finally in *mun.ey* 'literature and art, humanities', *hak.ey* 'science and art, arts and sciences', *kong.ey* 'arts and crafts, handicraft, industrial art', *ki.ey* 'crafts', *swu.ey* 'handicraft', etc. The dialect variants *nēy* and *yēy* 'yes' can be accounted for by a basic *nyēy*.

9. Grammatically conditioned alternations of *l* and *n*. Except in recent loanwords like *latio* 'radio', and in grammarians' terms like *niun* 'the letter n' and *liul* 'the letter l', the phoneme *l* does not occur after pause, nor do the sequences *ny*, *ni*. After pause, a morpheme whose basic allomorph begins with *l* appears in an alternant beginning with *n*. But those morphemes whose basic allomorphs begin with *li*, *ni*, *ly*, or *ny* occur in allomorphs which begin with *i* or *y*:

	BASIC SHAPE	SHAPE AFTER PAUSE
<i>l</i> : <i>n</i>	<i>yō.lo</i> 'important road'	<i>no.pyen</i> 'roadside'
<i>n</i> : <i>n</i>	<i>sī.nay</i> 'city (inside)'	<i>nāy.pu</i> 'inside part'
<i>ly</i> : <i>y</i>	<i>no.lyek</i> 'effort'	<i>yek.hayng</i> 'exertion'
<i>ny</i> : <i>y</i>	<i>swu.nye</i> 'nun'	<i>ye.ca</i> 'woman'
<i>li</i> : <i>i</i>	<i>sā.li</i> 'reason'	<i>ī.yu</i> 'reason'
<i>ni</i> : <i>i</i>	<i>tanphung niph</i> 'maple leaf'	<i>iph</i> 'leaf'

So far as the alternants after pause occur ONLY after pause (or, in the case of *n* for basic *l*, as well as *l* for basic *n*, after a consonant, as covered in §5), they can

be called phonemically determined, provided we ignore the recent loanwords. But in most words the 'altered' allomorph occurs word-initial whether the word is preceded by pause or within an utterance: *ku yeca* 'that woman', *musun iyu* 'some reason', *kulen yekhayng* 'such exertion', *i noppyen* 'this roadside'.

Certain other cases have to be specified in detail. The word *li* : *nī* : *ī* 'Korean mile' has the shape *ī* except after a numeral: *il li* '1 mile', *ī li* '2 miles', *sam nī* '3 miles' [see §5 for the *n*]. The word *ī* : *lī* '2' has the shape *ī* after anything (including pause) other than the word *il*: *il li* '1 or 2'. The word *ī* : *lī* 'reason' has the shape *ī* except after the prospective modifier: *-ul lī ēps-* 'not stand to reason that, be impossible that'. (The MORPHEMES for 'mile' and 'reason' have the shape *ī* when word-initial, *nī* when following a consonant other than *l*, and *lī* elsewhere.) The word *yuk* : *lyuk* : *nyuk* has the shape *yuk* except after a numeral: *ō lyuk chil* '5-6-7', *sim nyuk* '16'.

A number of words beginning with *i-* and *y-* have alternants beginning with *nī-* and *ny-* or other reflexes which appear in certain environments (usually as variants of the form without *n*): *cip il*, *cim nīl* 'house-work'; *hal līl* 'things to be done'. Virtually all verbs beginning with *i* or *y* have this variant alternant, but only after prefixes or the adverb *mōs* 'not, can not': *mōn nice*, *mōt ice* 'can't forget'; *mōn nīle na*, *mōt ile na* 'can't arise'; *mōn nīlke*, *mōt ilke* 'can't read'; *mōn nīke*, *mōt ike* 'can't ripen'; *mōn nīpe*, *mōt ipe* 'can't wear'; *mōn nīele*, *mōt yeke* 'can't open'. The sole exception I have found is *iss-* 'exist': *mōt isse* 'can't exist, stay'. (The copula *i-* does not occur immediately following the adverb *mōs*.)

There are also a number of words which begin with *y* but have alternants beginning with *ny* in certain environments: The word *yen* 'year' after a numeral has the alternant *nyen* (automatically *lyen* after *l*, §5). (The MORPHEME for 'year' has the shape *yen* when word initial, *lyen* after *l*, *nyen* elsewhere.) The word *yāktay* 'camel' has the alternant *nyāktay* in *tanpong nyāktay* 'single-hump camel, dromedary', and there are probably other cases of this type.¹⁶

There are a few words in which an expected reflex of a basic *l* or *n* does not occur. The basic shape of the final morpheme of *he.lak* 'permission' is *nak* as shown by *khway.nak* 'glad permission'; the basic shape of the final morpheme of *ū[i].non* 'discussion' is *lon* as in *sā.lon* 'historical treatise'. The basic shape of the final morpheme of *ki.lyem* 'memory, souvenir' is that found in *kāy.nyem* 'main idea, gist'; apparently some people say *kī.lung* for what my informants give as *kī.nung* 'faculty, ability', and for them this word would be a similar case (cf. *kā.nung* 'ability'). The last morpheme of *tāy.lo* 'great anger' historically has the basic shape *no*, but I have been unable to find a good colloquial example to confirm this on a descriptive basis.

The two words *kwal.lyem* 'idea' and *kōl.lan* 'difficulty, hardship' are particularly striking cases of this sort of confusion of basic form. The basic shapes for the two morphemes in the former example are *kwan* as in *kwan.chal* 'observation'

¹⁶ Word alternants of these types are not noted in the spelling system of the Korean Language Society, who write *mōs ilk-e* 'can't read', *il-ī* 'one or two', *sip-ī* '12', *il-ī* '1 mile', *-ul ī ēps-* 'not stand to reason', *tanphung iph* 'maple leaf', *tanpong yāktay* 'dromedary'. Exceptionally, *yen* 'year' is written *nyen* whenever pronounced *nyen* or *lyen* (it is usually not treated as a separate word in the native orthography).

and *nyem* as in *kāy.nyem* 'main idea, gist'; the basic shapes for the two morphemes in the latter example are *kōn* as in *kōn.ko* 'misery, distress' and *nan* as in *ko.nan* 'hardship'. (*Hankul machwum ppep thongil an* recommends the spellings *kwan.nyem* and *kon-nan* for these words, but *Khun sacen* spells the latter *kon-lan*.) A historical case of this sort is the proper name *Hōylyeng*, the last syllable of which is associated with the morpheme *nyeng* 'quiet, gentle'. *Kul.lyen* is a common variant for *kun.nyen* 'recent years'.

There are occasional speech variants with a double *l* in place of a single one: *kal lyēyceng ita* for *kal yēyceng ita* 'expects to go', *ku kel lo* for **ku ke lo* the expected shortening of *ku kes ulo* 'with that, as that, because of that', *hallye* for *halye* 'intending to do', *kitallinta* for *kitalinta* 'waits for'. See also the variant treatment of L-doubling vowel bases, §11.2.2.

The word *yak* 'medicine' has the shape *lyak* in *mul lyak* 'liquid medicine'.

For more discussion of alternations involving *l*, see §10, §11.1.4, §11.2.1-3.

10. One-shape and two-shape elements. There are certain particles which have one shape after a word ending in a consonant and another after a word ending in a vowel. Similarly, there are certain inflectional endings which have one shape when attached to a base with a final consonant and a different shape when attached to a base with a final vowel (and for this purpose a basic *w* counts as a consonant). There are other particles and inflectional endings, some of which have but one shape, some of which have more than one shape, but none of which are subject to an alternation determined by the final phoneme of the word or base to which they are attached. Particles and endings of the former type can be called TWO-SHAPE (though occasionally they have additional shapes conditioned by other factors), and endings of the latter type can be called ONE-SHAPE. The copula base in colloquial Korean is also an example of a two-shape element: *tangsin i.ta* 'it's you', *na -.ta* 'it's me'. Examples of inflectional endings will be found in §12. Examples of one-shape particles are *ey* 'to, at', *ey* (spelled *ui*) 'of' (subordinating particle), *kkaci* 'up to, even', *to* 'even, also', *se* 'at, from', *man* 'just, exactly', *mata* 'each, every', *puthe* 'from', etc. Here are examples of two-shape particles, with the post-consonantal shape given first: *i/ka* (subject), *ul / lul* (direct object), *iya / ya* 'only if it be', *un / nun* (reduced emphasis), *kwa / wa* 'with, and', *iyo / yo* (polite style). The particle *ulo / lo* (manner, direction, state or change of state, means, reason) is peculiar in using its postvocalic form *lo* also after the consonant *l*: contrast *yenphil ul* 'the pencil (direct object)' and *yenphil lo* 'with the pencil'. For another instance where /*l*/ is classed with the vowels, see the *l* extension of L-extending vowel bases (§11.2.1). See also the abbreviated form of the direct-object particle, fn 4.

11. Verb forms: base conjugations. Each inflectional form consists of a base + an ending. It is possible to classify bases and endings into groups according to the ways in which alternant shapes are attached to each other. We find two kinds of ending: in rough terms, ONE-SHAPE endings (like *-ko*, *-ta*, *-ci*, *-sey*, *-nun*, *-keyss-*, *-ess-*, *-kka*, *-e*) and TWO-SHAPE endings (like *-sumnita* / *-mnita*, *-so* / *-o*, *-una* / *-na*, *-umyen* / *-myen*, *-nunta* / *-nta*, *-un* / *-n*, *-ul* / *-l*, *-um* / *-m*, *-usi-* / *-si-*). The two-shape endings have one shape which is attached to a base ending in a

CONSONANT (in its basic form) and another shape which is attached to a base ending in a VOWEL (in its basic form). The one-shape endings do sometimes have more than one shape—the infinitive has a number of shapes, but the choice of alternants is not correlated with the type of final sound of the base.

On this basis we can set up conjugations, or classes of verb bases. Those bases which attach the shapes *-sumnita*, *-so*, *-una*, *-umyen*, *-nunta*, *-un*, *-ul*, *-um*, *-usi*, etc., are CONSONANT bases. Those which attach the shapes *-mnita*, *-o*, *-na*, *-myen*, *-nta*, *-n*, *-l*, *-m*, *-si*, etc., are VOWEL bases. Vowel and consonant bases both attach one-shape endings like *-ko*, *-ta*, *-ci*, *-nun*, etc., in the same way.

In addition to consonant bases and vowel bases, there are a few AMBIVALENT (or H-dropping) bases, and some verbs with minor irregularities which we can lump together as IRREGULAR bases. Among consonant bases we distinguish bases ending in *h* which are regular in the native orthography but ambivalent in colloquial speech, bases ending in *w* and in *l* which are quite regular in our Romanization (though they involve automatic alternations not found outside the inflectional system) but must be treated as special classes in the analysis underlying the native spelling, and S-dropping bases which involve a special type of alternation. Among vowel bases we can distinguish the sub-classes of L-ex-tending vowel bases, L-doubling vowel bases, and L-inserting vowel bases.

11.1. Consonant bases. Here are examples of all occurring types of final in consonant bases:

<i>ip</i> - 'wear'	<i>pālp</i> - 'tread on'
<i>noph</i> - 'be high'	<i>ulph</i> - 'intone, chant'
<i>ēps</i> - 'be non-existent'	<i>celm</i> - 'be young'
<i>tat</i> - 'close'	<i>kam</i> - 'shampoo'
<i>kath</i> - 'be alike'	<i>sin</i> - 'wear on feet'
<i>wus</i> - 'laugh'	<i>anc</i> - 'sit down'
<i>iss</i> - 'exist, stay'	<i>noh</i> - 'put'
<i>chac</i> - 'look for, find'	<i>ilh</i> - 'lose'
<i>coch</i> - 'follow'	<i>kkunh</i> - 'cut'
<i>mek</i> - 'eat'	<i>kakkaw</i> - 'be near'
<i>takk</i> - 'polish'	<i>tul</i> - 'hear'
<i>ilk</i> - 'read'	<i>cīs</i> - / <i>cī</i> - 'build'
<i>halth</i> - 'lick, taste'	

11.1.1. Bases ending in typically voiced consonants. A typically voiceless consonant (*p t s c k*) is reinforced (*pp tt ss cc kk*) after a base-final *m*, *n*, or *l* (reduced from syllable excess, since a basic *l* is treated as *t* in this environment, §11.1.4):

BASE	<i>nam</i> - 're- main'	<i>celm</i> - 'be young'	<i>sin</i> - 'wear'	<i>anc</i> - 'sit'	<i>halth</i> - 'lick'
GERUND <i>-ko</i>	<i>nam-kko</i>	<i>cem-kko</i>	<i>sin-kko</i>	<i>an-kko</i>	<i>hal-kko</i>
SUSPECTIVE <i>-ci</i>	<i>nam-cci</i>	<i>cem-cci</i>	<i>sin-cci</i>	<i>an-cci</i>	<i>hal-cci</i>
FORMAL STATE- MENT <i>-ssumnita</i>	<i>nam-ssum- nita</i>	<i>cem-ssum- nita</i>	<i>sin-ssum- nita</i>	<i>an-ssum- nita</i>	<i>hal-ssum- nita</i>
TRANSFERENTIVE <i>-ta (ka)</i>	<i>nam-tta (ka)</i>	<i>cem-tta (ka)</i>	<i>sin-tta (ka)</i>	<i>an-tta (ka)</i>	<i>hal-tta (ka)</i>

This reinforcement, which is ignored in the native spelling, is completely automatic only within the inflectional system, although in the rest of the structure it is also widespread, especially after *l*; cf. §13, §14.

11.1.2. Bases ending in *h*. When attaching a consonant, a base ending in vowel + *h* treats the *h* as *t* (which is then subject to automatic alternation, §5), unless the attached consonant is *t*, *c*, or *k*, with which the *h* undergoes metathesis. When attaching a consonant, a base ending in a typically voiced consonant + *h* (i.e. *lh*, *nh*) drops the *h* unless the attached consonant is *t*, *c*, or *k*, with which the *h* undergoes metathesis. (But bases which end in *ph*, *th*, and *ch* reduce this excess to *p* or *t* before attaching a consonant.)

BASE	<i>noh</i> - 'put'	<i>ilh</i> - 'lose'	<i>kkunh</i> - 'cut'
GERUND <i>-ko</i>	<i>nokho</i>	<i>ilkho</i>	<i>kkunkho</i>
SUSPECTIVE <i>-ci</i>	<i>noch</i>	<i>ilchi</i>	<i>kkunchi</i>
FORMAL STATEMENT <i>-sumnita</i>	<i>nossumnita</i>	<i>il-ssumnita</i>	<i>kkun-ssumnita</i>
TRANSFERENTIVE <i>-ta (ka)</i>	<i>notha (ka)</i>	<i>iltha (ka)</i>	<i>kkuntha (ka)</i>
PROCESSIVE MODIFIER <i>-nun</i>	<i>non-nun</i>	<i>il-lun</i>	<i>kkun-nun</i>

Here is a list of bases ending in *h*: *ccah*- 'weave', *ccih*- 'pound (rice), hull (barley)', *cōh*- 'be good', *nah*- 'give birth to', *neh*- 'put in, insert', *noh*- 'put, place', *ppah*- 'pound', *ssah*- 'pile up, accumulate', *tāh*- 'reach, arrive at', *ttah*- 'braid'.

Here is a list of bases ending in *lh*: *alh*- 'ail in, have sickness in (a part of the body)', *helh*- (= *hel ha*-) 'be cheap', *ilh*- 'lose', *kkulh*- 'boil, get boiled', *kkwulh*- 'bend (knees), kneel', *kolh*- (*kwulh*-) 'be insufficient', *kolh*- 'rot, spoil', *olh*- 'be right, just', *silh*- 'be disliked', *ssulh*- 'grind, polish (rice)', *talh*- 'get decreased, diminished, lessened', *ttwulh*- 'bore, drill'.

Here is a list of bases ending in *nh*: *kkunh*- 'cut (in two)', *kkonh*- 'mark down graphs; turn the body upside down', *mānh*- 'be many, much', *munh*- 'upset, overturn, smash'. To this we can add *anh*- the abbreviation of *an(i) ha*- 'do not; be not' and descriptive verbs derived from it: *cemcanh*- 'be dignified, refined', derived from the suspective of *celm*- [apparently derived at a time before the reinforcement of §11.1.1 had set in]; *enccanh*- 'be sad, ill-favored, bad' from the suspective of *enc*- 'lift things up'; *hacanh*- 'be unspeakable, unsavory, unsightly, disgusting' from the suspective of the descriptive verb *ha*- 'be (characterized by, in the state of)'; *katangchanh*- 'be unsuitable', derived from the descriptive verbal noun *katang* 'suitable' + the suspective of the descriptive verb *ha*- + *anh*-; *kathcanh*- (= *kaccanh*-) 'be unseemly', derived from the suspective of the descriptive verb *kath*- 'be like'; *kwaynchanh*- 'not make any difference' derived from the descriptive verbal noun *kwan* 'relevant' + the suspective of the descriptive verb *ha*- + *anh*- (cf. §2.3); *kwichanh*- 'be annoying, troublesome, bothersome' from the descriptive verbal noun *kwi* 'valuable' + the suspective of *ha*- + *anh*-. For evidence that a few NOUNS perhaps once had a final basic *h*, see §16.

11.1.3. Bases ending in *w*. Base-final *w* alternates with *p* before a consonant and coalesces with a following *u* in the vowel phoneme *wu* (which is one basis for writing the phoneme with this digraph). The basic *w* is heard only before the

infinitive suffix and the past-tense element deriving from the infinitive. Compare the following:

BASE	kakkaw- 'be near'	cwu- 'give'	ip- 'wear'
GERUND	kakkap-ko	cwu-ko	ip-ko
FORMAL STATEMENT	kakkap-sumnita	cwu-mnita	ip-sumnita
INFINITIVE	kakkaw-e	cwu-e	ip-e
ADVERSATIVE	kakkaw-una	cwu-na	ip-una

The Hankul writing system has no way to write a *w* at the end of a syllable, so the infinitive *kakkawe* has to be written *ka-kka-we* and the adversative *kakkawuna* has to be written *ka-kka-wu-na*. Since the only occurrences of morph-final *w* are verb bases, the alternations of *w* are completely automatic, i.e. phonemically determined. On *w*-bases see also §§12.14–15. In the provinces of Hwanghay and Phyengan, *w*-bases are treated as regular *p*-bases; cf. Pak 25.

There are many descriptive bases ending in *w* but the only processive ones I have found are *kīw*- 'mend, darn', *kwūw*- 'cook, broil', *nwwu*- 'lie down', *poyw*- '(I) humbly see', and *tow*- 'help'. Here are examples of descriptive verbs preceded by each of the vowels except *ey*, which apparently does not occur (and with the exception of *oy* which occurs only with the processive example *poyw*- above): *swi*w- 'be easy', *may*w- 'be hot-tasting', *wusu*w- 'be funny', *tew*- 'be warm', *pankaw*- 'be happy', *chwuw*- 'be cold', *kow*- 'be pretty'.

11.1.4. Bases ending in *l*. In attaching a consonant, *l*-bases treat the final consonant *l* as if *t*. Because the alternant in the form dictionaries cite verbs in (the indicative assertive *-ta*) has an orthographic *t* instead of *l*, Korean grammarians treat these as 'irregular *t*-bases'. These consonant bases ending in *l* are to be kept distinct from L-Extending Vowel Bases, which are treated by Korean grammarians (who do not make the major dichotomy here presented) as 'regular' i.e. *l*-dropping bases. Compare:

BASE	tul- 'hear'	tu-l- 'enter' (§11.2.1)	pat- 'get'
GERUND	tuk-ko	tul-ko	pak-ko
FORMAL STATEMENT	tus-sumnita	tu-mnita	pas-sumnita
INFINITIVE	tul-e	tul-e	pat-e
ADVERSATIVE	tul-una	tu-na	pat-una

Here is a fairly complete list of these bases: *cel*- 'get salty', *ilkhel*- 'designate, call', *kkaytal*- 'apprehend, perceive', *kēl*- 'walk', *kīl*- 'draw (water)', *kyēl*- 'oppose, meet, face; be skilled (in)', *kyēl*- 'weave (reeds)', *mūl*- 'inquire', *nwūl*- 'get scorched, burned', *pūl*- 'increase, swell', *tal*- 'run', *sīl*- 'load', *tul*- 'listen, hear'. [Also *tatal*-, archaic variant of *tatalu*- 'succeed, achieve'.]

In the provinces of Hwanghay and Phyengan these are all treated as regular *t*-bases; cf. Pak 24.

11.1.5. S-dropping bases. These consonant bases end in a basic *s* when attaching a shape beginning with a consonant, but the *s* drops when attaching a shape beginning with a vowel. The SELECTION of the vowel-beginning alternant of a two-shape ending is just like that for any other base; in ordinary speech, however, *-u* is often dropped, leaving the base similar to the *h*-dropping ambivalent bases (§11.3).

	WITH <i>s</i>	WITHOUT <i>s</i>
BASE	cīs- 'build'	
GERUND	cīk-ko	
SUSPECTIVE	cīc-ci	
TRANSFERENTIVE	cīl-ta (ka)	
FORMAL STATEMENT	cīs-sumnita	
PROCESSIVE MODIFIER	cīn-nun	
INFINITIVE		cī-e
ADVERSATIVE		cī-una (cī-na)

This group seems to contain only 9 bases: *is*- / *i*- 'link up, join', *cīs*- / *cī*-¹⁷ 'build', *kūs*- / *kū*- 'draw (a line), strike (a match)', *cēs*- / *cē*- 'beat, whip (eggs)', *nās*- / *nā*- 'be better', *nās*- / *nā*- '(an illness) get better', *cas*- / *ca*- 'spin [technical term]', *cwus*- / *cwu*- 'pick up, glean', *ccwus*- / *ccwu*- 'peck at', *pus*- / *pu*- 'get swollen'. Those bases in which the *s* is preceded by *a* do not add the ending *-e* for the infinitive, as we should expect, but are treated like vowel verbs in *-a*, adding zero: *nā* 'is better'. This, too, parallels the *h*-dropping ambivalent bases (§11.3).

11.2. Vowel bases. Here are examples of bases with each vowel (two examples are given when the number of syllables is relevant to the formation of the infinitive, §12.5): *swī*- 'rest', *kitali*- 'wait for', *sēy*- 'count', *toy*- 'become', *nāy*- 'put out, pay', *ssu*- 'use; write', *sa*- 'buy', *cwu*- 'give', *nanwu*- 'divide', *po*- 'see', *nano*- 'divide' (variant of *nanwu*-). The only vowel bases which end in the vowel *e* are the abbreviations *ile*-, *kule*-, etc., which are classed with irregular bases (§11.4) because of the infinitive forms which parallel those of *ha*-. A common variant is to regularize these *e* bases to *u* (*kulu*- for *kule*- 'say or do that way'). A literary variant is to spell all *u* bases with *e*. Cf. §2.5.

Most endings attach to vowel bases in a simple fashion, but there are a number of complexities involving both ending and base for the infinitive; these are covered in §12.5.

¹⁷ As *cīs*- / *cī*- 'build' was the only base in this class noted by Horne, she was able to devise an ingenious treatment which regularized the conjugation by introducing a morph-final *y*, treated as *t* before a consonant: *ciy-una*, etc. This interpretation introduced an otherwise nonexistent cluster *y-u*. (Our notation *yu* is short for *ywu*.) There was no other difficulty, so long as *i* was the only vowel involved (see §2.4.7), but since other vowels appear in bases of this class, Horne's treatment must be rejected. My own suggestion is to ignore the orthographic *s* in the basic form of the various consonant reflexes—phonemically consonant + *q* in most cases—and treat the basic form as vowel + *q*: *cīq*-, *nāq*-, etc. The morph-final *q* then works not unlike the morph-final *h*—it undergoes metathesis whenever possible (i.e. when attaching *p t s c k*), is silent between vowels, and otherwise behaves like *t*. The reasons the Koreans treat it as a 'disappearing *s*' rather than a 'disappearing *t*' are historical. See also §13.

The Korean grammarian Kimun Hong apparently regards these bases as ending in a basic glottal stop (i.e. my /q/), to judge by their treatment in the spelling reform adopted by the North Korean government in 1949. (Information on this spelling reform is contained in a grammar by Kimun Hong and others, available on microfilm at the Library of Congress. Some information is also contained in the introduction to A. A. Kholodovich's Korean-Russian dictionary (Moscow 1950), though Kholodovich himself follows the spelling of Seyyeng Mun's dictionary in the body of his work.)

11.2.1. L-extending vowel bases. The L-extending vowel base selects the appropriate alternant of a two-shape ending in the same way as an ordinary vowel base, but it adds an *l* to the base before certain endings: before all one-shape endings beginning with a typically voiceless consonant or with a vowel (*-ko*, *-ta*, *-ci*, *-sey*, *-keyss*, *-e*, *-ess*, etc.; but not *-n.i*, *-nun*, *-nula*) and before those two-shape endings which begin with *l* or *m* followed by a vowel or by *y* (*-lye*, *-la*, *-myen*; and *-m* when followed by a particle beginning with a vowel such as *ulo*, *ey*, *a*). A long vowel in a one-syllable L-extending base is shortened in the infinitive and past forms: *kē-l* 'hang', *kel-e*, *kel-ess*. Before the ending *-ca* (sub-junctive assertive), the extending *-l* is often dropped in everyday speech: *kēca māca* = *kēlca mālca* 'no sooner does he hang it up (than) ...' Cf. §2.3.

In citing L-extending bases, it is handy to mark them from consonant bases ending in *l* by inserting a hyphen before the extension: *tu-l* 'enter' is in this way seen to be different from *tul* 'hear' though they have some forms in common: *tu-l-e* 'enters' and *tul-e* 'hears' (infinitive). Cf. §11.1.4.

In the native spelling, this L-extension should be written with the last syllable of the base (so that 'enters' and 'hears' are both spelled *tul-e*), but many Koreans violate this rule by beginning the first syllable of the ending with this *l* when possible, especially in the infinitive.¹⁸

Here are examples of L-extending bases with each vowel I have found: *kē-l* 'be long', *tu-l* 'enter; cost', *kē-l* 'hang up', *ā-l* 'know', *wū-l* 'cry', *nō-l* 'play'. I have found no cases of *-ey-l*, *-ay-l*, or *-oy-l*.

11.2.2. L-doubling vowel bases. The L-doubling vowel base has a shape which ends in vowel + *lu*. When the infinitive ending (*-e*, *-a*, etc.) or the past tense element (*-ess*, *-ass*, etc.) is attached, the vowel *u* drops, §12.5 (3), and the remaining *l* doubles: *pulu-*, *pull-e* 'calls'; *molu-*, *moll-a* 'does not know'. There are only a few bases in this class, and many Koreans regularize the group by doubling the *l* everywhere, treating the bases as *pullu-*, *mollu-*, etc. Here is a list with as many different types of preceding vowel as I have been able to find: *ilu-* 'narrate, say', *keylu-* (shortening of *keyulu-*) 'be lazy', *hulu-* 'flow, run', *kelu-* 'sift, strain', *palu-* 'be right', *pulu-* 'call', *olu-* 'rise'. Since the Hankul writing system makes no provision for two *l*'s within a syllable, the second one is perforce written as the initial of the second syllable (*pul-le*, *mol-la*, etc.).¹⁹

11.2.3. L-inserting vowel bases. The L-inserting vowel base ends in a vowel + *lu*, like the L-doubling base, but instead of dropping the *u* and doubling the *l*, it adds an *l* before the infinitive ending or past-tense element: *mwulu-*, *mwulul-e* 'be yellow'. (The native orthography spells the *l* with the ending: *mwu-lu-le*.)

¹⁸ The Korean orthographic rules may be stated in this way: For L-extending vowel bases (like *tu-l* 'enter'), write the *l*—at the end of the last syllable of the base—only where it is heard. For consonant bases ending in *l* (like *tul* 'hear'), write a base-final *l* whenever the *l* is actually heard; in all other forms write base-final *t*.

¹⁹ A number of L-extending bases are confused by many Koreans with L-doubling bases in some of their paradigmatic forms: e.g. we find both the variant *ecilun* and the standard form *ecin* for the modifier category of *eci-l* 'be kind, good'. This means that some L-extending bases have a standard paradigm and also a variant one (complete or defective).

I have found only three examples: *ilu-* 'reach', *mwulu-* 'be yellow', *phulu-* 'be blue'.

Aside from these three bases, all bases ending in *lu* seem to be L-doubling, with the two exceptions of *ttalu-* 'conform, obey', and *chilu-* 'pay, disburse', which are ordinary vowel verbs and merely drop the final *u* (§12.5) when attaching the infinitive ending: *ttal-e* (literary variant *ttal-a*), *chil-e*.

11.3. Ambivalent bases. Ambivalent bases are treated as consonant bases ending in *h* (§11.1.2) before *-sumnita* and before one-shape endings not beginning with a vowel (i.e. other than the infinitive and the past-tense element, which are like those of irregular bases §11.4), but as vowel bases (with the *h* dropped) before two-shape endings other than *-sumnita* / *-mnita*. These bases are all derived from an infinitive (*-e*, *-a*, etc.) + a reduced form of the irregular descriptive verb *ha-* 'be', so their infinitive and past forms are similar to *ha-y*, *ha-yss* (§11.4). Bases derived from the processive verb *ha-* 'do, say' are not ambivalent, but just irregular vowel bases like *ha-*. Compare:

	<i>kuleh-</i> / <i>kule-</i> 'be like that'	<i>kule-</i> 'do, say like that'
GERUND	<i>kulekho</i>	<i>kuleko</i>
SUSPECTIVE	<i>kulechi</i>	<i>kuleci</i>
FORMAL STATEMENT	<i>kulessumnita</i>	<i>kulemnita</i>
ADVERSATIVE	<i>kulena</i>	<i>kulena</i>
INFINITIVE	<i>kulay</i>	<i>kulay</i>

In the spoken language, all *h* bases (§11.1.2) are usually treated as ambivalent (with a long vowel in the form without the *h*, and with regular infinitives), but the native spelling treats in this way only rather obvious contractions and derivatives, in which the irregular infinitive attests to their relation with *ha-*.²⁰

Here is a fairly complete list of the ambivalent bases:

- ile-h-* 'be this way'
- kule-h-* 'be that way'
- cele-h-* 'be that way over there'
- ette-h-* 'be what way'
- amole-h-* 'be any way'
- a-h-* 'giving the impression of, looking like'²¹ (infinitive *-a* + *ha-*)
 - ha-y.a-h-* 'be white' (*hī-* 'be white')
 - kkam.a-h-* 'be black' (*kem-* 'be black')
 - malk.a-h-* 'be blue, green' (*malk-* 'be clear')
 - palk.a-h-* (*pelk.e-h-*) 'be red' (*pulk-* 'be red')
 - phal.a-h-* 'be blue' (*phulu-* 'be blue')

²⁰ The historical origin from *ha-* of the *h* in *cōh-* 'be good' (from a Chinese loanmorph *cō* 'good'), and of that in *nah-* 'give birth to' (from the infinitive of *na-* 'exit, get born, etc.'), is known only to a few grammarians. We can consider the ambivalent treatment as a common variant.

²¹ The tag translations do not pretend to do justice to the Korean meanings of these impressionistic words, each of which has a variety of denotative, connotative, and idiolectal shades. The derivations involve some individual shape alternations and derivational morphemes here passed over in silence.

- po-y.a-h-* 'be gray, misty' (perhaps *poi-* 'be visible')
ppo-y.a-h- 'be grey, silvery'
say.phal.a-h- 'be green'
say.ppalk.a-h- 'be red'
-e-h- 'giving the impression of, looking like'²¹ (infinitive *-e* + *ha-*)
he-y.e-h- 'be white, pale'
kkem.e-h- 'be black'
mēlk.e-h- 'be dull (white)'
ppuy.e-h- 'be smoky, frosted'
sayn.nwul.e-h- 'be yellowish' (*nwulu-* 'be yellow')
sin.nwul.e-h- 'be yellowish'
senul.e-h- 'be cool' (*senul ha-* 'be cool')
si.phel.e-h- 'be blackish' (*phulu-* 'be blue')
si.ppelk.e-h- 'be red'
twungkul.e-h- 'be round' (*twungku-l-* 'be round')
-tala-h- 'ish' (probably from *-ta ila ha-*)²²
kanu.tala-h- 'be sort of slender' (*kanu-l-* 'be slender')
khe.tala-h- 'be sort of big' (*khe-* = *khu-*, §11.2)
kī-tala-h- 'be sort of long' (*kī-l-* 'be long')
kip.tala-h- 'be sort of deep' (*kiph-* 'be deep')
kop.tala-h- 'be sort of pretty' (*kow-* 'be pretty')
kuk.tala-h- 'be sort of thick' (*kulk-* 'be big and round')
nel.tala-h- 'be sort of wide' (*nelp-* 'be wide')
nop.tala-h- 'be sort of tall' (*noph-* 'be tall')

11.4. Irregular bases: *ha-* and derivatives. The base *ha-* (strictly, both the processive verb base meaning 'do, say' and the descriptive one meaning 'be') and certain processive verbs bases derived from *ha-* (*ile-*, *kule-*, *cele-*, *ette-*, *amole-* 'do or say this way, that way, that way there, what way, any way') have irregular infinitives: *ha-y*, *il.a-y*, *kul.a-y*, *cel.a-y*, *ett.a-y*, *amol.a-y*. The infinitive of the base *ha-* itself has a literary variant *ha-ye*. (The past-tense forms, as always, follow the pattern of the infinitive: *ha-yss-* or *ha-yess-*, *il.a-yss-*, etc.) There are no literary infinitive variants for the other verbs because they are abbreviations which are expanded to their models in formal writing: *ile ha-y* or *ile ha-ye*, *kule ha-yss-* or *kule ha-yess-*, etc. See also §12.15. *Ette* 'what way' has a variant *ecce*, from which there is a derived adverb (§12.15) *ecci* with about the same meaning.

11.5. Irregular bases: K-inserting and N-inserting. A base of this type has two infinitive forms: a regular one, formed as expected, and a special one used only before the imperative particle *la*.²³

The vowel bases *ca-* 'sleep', *na-* 'exit', and *ka-* 'go', together with the consonant base *iss-* 'stay', insert *k* before attaching this secondary infinitive ending: *cake* (*la*), *nake* (*la*), *kake* (*la*), *ikke* (*la*). The vowel base *o-* 'come' inserts *n*: *one* (*la*).

²² All such forms have shortened variants in *-ta-h-*.

²³ This word is not to be confused with the morphemically related subjunctive attentive ending *-ula* / *-la* which is attached directly to the base and produces a plain command form used only in quotative constructions. For vowel bases ending in *ey*, *oy*, *ay*, or *a* the forms sound identical: *sēy.0 la*, *sēy-la* 'count'; *oy.0 la*, *oy-la* 'memorize'; *nāy.0 la*, *nāy-la* 'put out, pay'; *sa.0 la*, *sa-la* 'buy'.

There may be other bases which belong to this class. In the native spelling, the inserted phoneme is written with the last syllable: *ca-ke(-la)*, *iss-ke(-la)*, *o-ne(-la)*.

12. Verb forms: the structure of endings. The total number of paradigmatic endings for modern Korean is over 400. This does not include constructions which I have analyzed as inflected form + particle (such as the infinitive *-e* + the particles *se*, *to*, *ya*, *la*; the nominative *-ki* + the particles *ey*, *lo*, etc.; the gerund *-ko* + the particle *nun* or its abbreviation *n*; the suspensive *-ci* + the particle *man* or the particle sequence *man un*²⁴; the substantive *-um* + the particle *ulo*²⁴), or cases of modifier form + postmodifier (such as *-tun ci*, *-nun ya*²⁴, *-ul kka*, *-nun tey*), or abbreviated quotative constructions (*-ta -nta* for *-ta hanta*, *ila -nun* for *ila hanun*). Korean grammarians often lump these constructions together with the inflected forms.

12.1. Semantic categories. It is useful to class the parts which occur in the endings into rough semantic categories. We can distinguish the following: STATUS, TENSE, ASPECT, STYLE, and MOOD.

The status morpheme is the HONORIFIC MARKER. This shows that the speaker considers as honored the social status of the subject of the inflected form.²⁵

There are two tense morphemes. The PAST MARKER is (historically) a contraction of the infinitive mood (typically *-e*) + the base *iss-* 'exist', and it has the typical shape *-ess-*, with the vowel *e* subject to most of the same variations as those of the infinitive mood ending *-e*. The FUTURE MARKER is (historically) an abbreviation of the short variant *ke* of the word *kes* 'tentative or probable fact' + *iss-*, and has the typical shape *-keyss-*. *Iss-*, *-ess-*, and *-keyss-* are the only elements with a basic shape ending in *ss*. The meaning of the past marker is definite, completed action or state (and so usually past); the future marker shows incompleting action and is used both for a definite future and a probable present (or past). A paraphrastic expression (*-ul kkes i-ta*) is used for probable future, usually limited to second and third person, and there is a probable past construction built on this (*-ess-ul kkes i-ta*). The action or state of PAST-PAST is more remote or more definitely completed than that of past, but it is not necessarily related to some other past action, and so does not always correspond to the English pluperfect. The action or state of PAST FUTURE is either future perfect ('will have, would have') or probable past ('probably did, probably has done'). There are PAST-PAST FUTURE forms, but they seem to be rare in actual use.

²⁴ The spelling system of the Korean Language Society treats these as unanalyzed endings and writes *-ma-nun*, *-u-mu-lo*, and *-nu-nya*, respectively. Their spelling system would treat the other sequences in just one way regardless of the analysis.

²⁵ In a few constructions the less-direct subject of the form: *Kim sensayng i kāy ka issusimnikka?* 'As for Mr Kim does there exist a dog = Do you have a dog, Mr Kim?' A Korean verb can have more than one subject, but only one direct object: compare *Nwu ka meli ka aphe* 'Who has a headache?' with *Nwu ka meli lul alhe* 'Who is sick in the head?' There is an archaic variant of the honorific morpheme with the shape *-usiop-/siop-* before 1-shape endings and the shape *-usio-/sio-* before 2-shape endings. Parallel to this is an archaic HUMBLE morpheme with the shape *-sa(o)p-/op-* before 1-shape endings and the shape *-sao/-o-* before 2-shape endings. Note that the archaic imperative ending *-usiopsese/-siopsese* (as in *cwusiopsese* 'please give') consists of *-usiop-/siop-* + an archaic ending *-sese*.

There are five aspect morphemes—INDICATIVE, SUBJUNCTIVE, RETROSPECTIVE, PROSPECTIVE, and PROGRESSIVE. The exact range of meaning for each is difficult to verbalize except in a list of the meanings of all the endings which include the morphemes. The SUBJUNCTIVE aspect underlies, when combined with the assertive mood, the ending which expresses suggestion, proposition, or immediate sequence; and, when combined with the attentive mood, the command or imperative ending. The RETROSPECTIVE aspect means something like 'it has been observed that'. The observation can be that of the speaker, that of someone else, or a purely grammatical device. The PROSPECTIVE shows an action which is to be (by wish, obligation, or just expectation). The PROGRESSIVE focuses attention on an action under way, in process.

The number of mood morphemes is much larger, and it is sometimes difficult to decide whether to add to the number by counting as a separate mood an element which can perhaps be broken into smaller parts. I have preferred a rather atomistic analysis. The term 'mood' is used very loosely to cover the grammatical meaning of the final morpheme in each inflectional ending. Four of the moods are particularly troublesome because of their frequency and the complexity of alternations in shape when they are combined with other morphemes: the assertive, attentive, apperceptive, and modifier.

The ASSERTIVE mood, when attached to indicative, retrospective, or processive aspects, produces forms which can be called 'statement' or 'declarative'—they assert some fact. When attached to the subjunctive aspect, the assertive mood produces a form which can be called 'suggestion' or 'propositive'—it asserts a proposition or suggestion, or shows an immediate sequence ('no sooner ...').

The ATTENTIVE mood, when attached to indicative, retrospective, or processive aspects, produces forms which can be called 'question' or 'interrogative'—they await a verbal response on the part of the listener. When attached to the subjunctive aspect, the attentive mood produces a form which can be called 'command' or 'imperative'—it is an order which awaits an action response on the part of the listener.

The APPERCEPTIVE mood indicates a sudden realization on the part of the speaker: 'oh, I see ...'. Certain expected occurrences of this mood are replaced by paraphrastic constructions consisting of a modifier form + the postmodifier *kwumen* (or its abbreviation *kwun* in more intimate discourse), morphemically identical with the suffix, but here a separate word. Compare *Chwupkwun* 'I see it's cold' with *Pi ka onun kwun* 'I see it's raining'. The construction processive modifier + *kwu(me)n* appears in place of a PROGRESSIVE verb base directly attached to the apperceptive mood: there is no **o-kwun*. There are retrospective apperceptive forms *-tu-kwu(me)n* which are interchangeable semantically with retrospective modifier + postmodifier *-t-un kwu(me)n*, and perhaps they can be regarded simply as abbreviations of this.

The MODIFIER mood indicates that the form modifies (partially describes) the following noun or noun expression. See §12.4.

12.2. Morpheme sequence positions. If we examine all the endings and divide

them up into constituent elements, we find seven SEQUENCE POSITIONS.²⁶ In other words, we may have as many as seven parts in an ending. The maximum possibility is shown by the ending *-usessekkeyssumnita*, the honorific past-past future formal indicative assertive, with a meaning something like 'someone honored will have done (or probably did) something at an earlier time (and I am treating my listener with deference by using the formal style of speech)'. If we separate the parts by hyphens, and write each part according to its basic shape, the ending looks like this: *-usi-ess-ess-keyss-sup-ni-ta*.

The various shapes of the ending morphemes are shown in Table 2 and the list that follows it, according to sequence positions. The assertive and attentive moods have been divided into two subsections to facilitate discussion (as a result the shapes *-ta* and *-ey* are repeated). A slant bar separates alternant forms, the selection of which is automatically determined by whether the attached base ends in a consonant or vowel (in its basic shape). Parentheses indicate a dialect variant for a standard form: *(-up-)* for *-sup-*, *(-uo)* for *-so*.

1. STATUS	2. TENSE	3. TENSE	4a. TENSE	5. STYLE	6. ASPECT
Honorific	Past	Past	Future	Formal	1. Indicative
<i>-usi/-si-</i>	<i>-ess-</i>	<i>-ess-</i>	<i>-keyss-</i>	<i>-sup-(-up-)/-p-</i>	<i>-ni-</i>
<i>-us/-s-</i>		<i>-ass-</i>			<i>-n-</i>
		<i>-yess-</i>		<i>-u-</i>	<i>-0-</i>
		<i>-yss-</i>		<i>-0-</i>	2. Subjunctive
		<i>-yass-</i>			<i>-si-</i>
		<i>-ss-</i>			<i>-s-</i>
			4b. ASPECT		<i>-0-</i>
			Prospective		3. Retrospective
			<i>-ul/-l-</i>		<i>-ti-</i>
					<i>-tu-</i>
					<i>-t-</i>
					<i>-l-</i>
					4. Processive
					<i>-nun/-n-</i>

TABLE 2

7. MOOD

1. Assertive	2a. Interrogative
1a. Declarative	<i>-kka</i>
<i>-ta</i>	<i>-i</i>
<i>-la</i>	<i>-a</i>
<i>-ey</i>	2b. Imperative
<i>-so (-uo) / -o</i>	<i>-o</i>
1b. Propositive	<i>-ula/-la</i>
<i>-ta</i>	3. Apperceptive (§12.1, §12.13)
<i>-ca</i>	<i>-kwumen</i>
<i>-ey</i>	<i>-kwun</i>
2. Attentive	<i>-kwulye</i>

²⁶ But this is achieved only by temporarily ignoring the complex endings discussed in §§12.7-10. I believe the separate treatment is valid; we present pattern where we can find it.

- 3a. Extended apperceptive (§12.6)
-kwun a
4. Modifier
-un/-n
-o
5. Infinitive (§12.5)
-e, -ey, -a, -ya,
-ye, -yey, -y, -o
6. Adversative 'but' -una/-na
- 6a. Extended adversative -una-ma/-na-ma (§12.6)
7. Sequential 'as' -uni/-ni
- 7a. Extended sequential -uni-kka (n) / -ni-kka (n) (§12.6)
8. Suspective 'questioned or denied fact; casual fact' -ci
9. Projective 'to the point where, so that' -tolok
10. Adverbial 'so that' -key
11. Gerund 'and also' -ko (§12.13)
12. Nominative 'fact, act' -ki
- 12a. Extended nominative -ki-ll-ey
13. Substantive 'fact, doing' -um/-m (§12.14)
- 13a-d. Complex moods built on the substantive (§12.7)
- 13a. Conjunctive -umye/-mye
- 13b. Extended conjunctive (= conditional) -umyen/-myen
- 13c. Contingent -umey/-mey (-umay/-may)
- 13d. Assumptive -uma/-ma, -umsey/-msey
- 14a-g. Complex moods built on the prospective modifier (§12.8)
- 14a. Intensive -ulye/-lye
- 14b. Purportive -ule/-le
- 14c. Frustrated intensive -ulyen-man (un) / -lyen-man (un)
- 14d. Prospective assertive -ul-ita/-l-ita
- 14e. Prospective attentive -ul-ikka/-l-ikka
- 14f. Intensive assertive -ul-yetta/-l-yetta
- 14g. Cajolative -ulyem (una) / -lyem (una)
- 15a-h. Complex moods built on the incorporated postmodifier ke(s) (§12.10)
- 15a. Tentative adversative -ke-na
- 15b. Tentative sequential -ke-ni
- 15c. Provisional -ket-un
- 15d. Tentative conditional -ket-umyen
- 15e. Literary conditional -ken-tay
- 15f. Semiliterary concessive -ken-man (un)
- 15g. Tentative assertive -ket-ta
- 15h. Immediate future -kkey
16. Transferentive -ta (ka) (§12.11)
17. Concessive -toy (§12.12)
18. Derived adverb-noun -i, -li, -o, (-wu)

12.3. Assertive and attentive endings. The principal endings which combine the assertive and attentive moods with style and aspect morphemes are shown below. This is not to be regarded as a style paradigm; for different styles, corresponding semantic categories correspond in some cases to paraphrastic constructions or simply do not occur. The first column shows the ending as it is pronounced, the second shows the morph division, and the third gives a label for the category.

-ta	-o-ta	PLAIN indicative assertive (= declarative): in the colloquial attached only to descriptive bases, descriptive bases + honorific marker, and to past and future elements (themselves attached to any base)—but see §12.11.
ila	i-o-la	indicative assertive of the copula when used in QUOTATIVE constructions
-ney	-n-ey	FAMILIAR indicative assertive
-so / -o	-o-so ²⁷ / -o-o	AUTHORITATIVE indicative assertive

²⁷ But the standard orthography writes the alternant -o for -so and the variant -up- for -sup- after the sequence ss (i.e. after iss-, -ess-, -keyss-) and after eps-. The automatic alternations are such that ss + so and ss + o both correspond to sso, and eps + o and ep + so both correspond to epsso. The variant forms seem to be older and this is perhaps the reason the native orthographers prefer to write them whenever they are not in actual conflict with the pronunciation.

-sumnita / -mnita	-sup-ni-ta ²⁷ / -p-ni-ta	FORMAL indicative assertive
-ca	-o-ca	PLAIN subjunctive assertive (= propositive)
-sey	-s-ey	FAMILIAR subjunctive assertive
-upsita / -psita	-up-si-ta / -p-si-ta	FORMAL subjunctive assertive
-tula	-tu-la	PLAIN retrospective assertive
-tey	-t-ey	FAMILIAR retrospective assertive
iley	i-l-ey	FAMILIAR retrospective assertive of the copula
-suptita / -ptita	-sup-ti-ta ²⁷ / -p-ti-ta	FORMAL retrospective assertive
-nunta / -nta	-nun-ta / -n-ta	(PLAIN) processive assertive
-ni	-n-i	PLAIN indicative attentive (= interrogative)
-na	-n-a	FAMILIAR indicative attentive
-sumnikka / -mnikka	-sup-ni-kka ²⁷ / -p-ni-kka	FORMAL indicative attentive
-ula / -la	-o-ula / -o-la	PLAIN subjunctive attentive (= imperative)
-usio / -sio / -psio	-u-si-o / -o-si-o / -p-si-o	FORMAL subjunctive attentive (the last alternant is attached to the honorific marker)
-suptikka / -ptikka	-sup-ti-kka ²⁷ / -p-ti-kka	FORMAL retrospective attentive

2.4.4 Modifier endings. The modifier mood indicates that the form modifies the following noun or noun expression. If the base is that of a processive verb, the English translation of the plain modifier form is usually in the past or perfect tense: *o-n salam* 'a man who has come, a man who came', *ilk-un chayk* 'books which someone has read'. If the base is that of a descriptive verb, the English translational equivalent is usually in the present tense: *khu-n cip* 'a house which is big', *hakkyo sensayng i-n Kim sensayng* 'Mr Kim who is a school teacher'.²⁸ Notice that Korean has no marked present tense. Forms without the explicit past or future markers are either present by default, as it were, or are timeless. They are often used to refer to past and especially future events.

The various modifier forms are listed below. In the first column is a list of the occurring alternants, with the typical shape (that which occurs after a consonant) given first. Two shape alternants are separated by a slant bar when their selection depends on the class of the final phoneme of the verb base. Other alternants (those involving the past element, which varies in the same way as the infinitive, §12.5) are indented beneath the typical shape.

-un/-n	-un/-n	modifier
-tun	-t-un	retrospective modifier
-ettun	-ess-t-un	past retrospective modifier
-attun	-ass-t-un	
-ttun	-ss-t-un	
-yttun	-y-ss-t-un	

²⁸ For a semantic parallel, compare the Chinese subordinating particle *de*, which shows a similar range of meaning: *lai de ren* 'people who have come', *heen hao de ren* 'people who are very good'. In order to get the Korean equivalent of an English past tense for a modifying descriptive verb, it is necessary to use the ordinary or past retrospective modifier: *khettun cip* 'a house which (it has been observed) was big', *hakkyo sensayng itun Kim sensayng* 'Mr Kim who has been observed to be a school teacher'. This does not correspond to the semantic status of a descriptive verb not in modifier form: *khuta* 'it is big', *khetta* 'it was big'; *hakkyo sensayng ita* 'he is a school teacher', *hakkyo sensayng ietta* 'he was a school teacher'.

(-yettun)	(-yess-t-un)	
-essettun	-ess-ess-t-un	past-past retrospective modifier
-assettun	-ass-ess-t-un	
-ssettun	-ss-ess-t-un	
-ysettun	-yss-ess-t-un	
(-yessettun)	(-yess-ess-t-un)	
-keyttun	-keyss-t-un	future retrospective modifier
-ekkeyttun	-ess-keyss-t-un	past future retrospective modifier
-akkeyttun	-ass-keyss-t-un	
-kkeyttun	-ss-keyss-t-un	
-ykkeyttun	-yss-keyss-t-un	
(-yekkeyttun)	(-yess-keyss-t-un)	
-essekkeyttun	-ess-ess-keyss-t-un	past-past future retrospective modifier
-assekkeyttun	-ass-ess-keyss-t-un	
-ssekkeyttun	-ss-ess-keyss-t-un	
-yssekkeyttun	-yss-ess-keyss-t-un	
(-yessekkeyttun)	(-yess-ess-keyss-t-un)	
-nun	-n-un	processive modifier
-keynnun	-keyss-n-un	future processive modifier
-ullun/-llun	-ul-n-un/-l-n-un	prospective processive modifier
-ekkeynnun	-ess-keyss-n-un	past future processive modifier
-akkeynnun	-ass-keyss-n-un	
-kkeynnun	-ss-keyss-n-un	
-ykkeynnun	-yss-keyss-n-un	
(-yekkeynnun)	(-yess-keyss-n-un)	
-essekkeynnun	-ess-ess-keyss-n-un	past-past future processive modifier
-assekkeynnun	-ass-ess-keyss-n-un	
-ssekkeynnun	-ss-ess-keyss-n-un	
-yssekkeynnun	-yss-ess-keyss-n-un	
(-yekkeynnun)	(-yess-keyss-n-un)	
-ennun	-ess-n-un	past processive modifier
-annun	-ass-n-un	
-nnun	-ss-n-un	
-ynnun	-yss-n-un	
(-yennun)	(-yess-n-un)	
-essennun	-ess-ess-n-un	past-past processive modifier
-assennun	-ass-ess-n-un	
-ssennun	-ss-ess-n-un	
(-yessennun)	(-yess-ess-n-un)	
-ul/-l	-ul-0/-l-0	prospective modifier
-essul	-ess-ul-0	past prospective modifier
-assul	-ass-ul-0	
-ssul	-ss-ul-0	
-yssul	-yss-ul-0	
(-yessul)	(-yess-ul-0)	
-essessul	-ess-ess-ul-0	past-past prospective modifier
-assessul	-ass-ess-ul-0	
-ssessul	-ss-ess-ul-0	
-yssessul	-yss-ess-ul-0	
(-yessessul)	(-yess-ess-ul-0)	

The complex forms of the processive modifier (-ennun, -keynnun, etc.) occur only in front of the postmodifiers *ci* 'the uncertain fact (whether)', *ka* 'the question (whether)', *tey* '(given) the circumstance', and *ya* 'the question

(whether)'. The prospective processive modifier *-ullun* seems to occur only in front of the one postmodifier *ci* 'the uncertain fact (whether)' and here it is semantically interchangeable with *-keynnun* or *-ul*.

An initial *p*, *t*, *s*, *c*, or *k* of any noun which occurs immediately following the final *l* of prospective modifiers (with no pause between) is reinforced to *pp*, *tt*, *ss*, *cc*, or *kk*. This reinforcement is automatic only within constructions involving inflected forms (it also occurs after an *l* reduced from a base with syllable excess, §11.1.1) or perhaps, for *s*, within the word (contrast *Sewul se* 'from Seoul', *Cosen māl sensayng* 'Korean language teacher' with *yel.ssim* 'zeal, enthusiasm'), though it is widespread through the rest of the structure, §14.

12.5. The infinitive and its variants. The infinitive is used:

- (1) by itself at the end of a non-final clause to mean 'and so' or 'and then';
- (2) as a connecting form used with an auxiliary verb (*ance iss-* 'be seated', *hay noh-* 'do for later'), or used to link two ordinary verbs in a kind of compound (*na o-* 'come out', *ile na-* 'get up', *ale tul-* 'understand');
- (3) followed by the particle *se* with about the same meaning as (1);
- (4) followed by the particle *ya* with the meaning 'only if it be', in such expressions as *Tōn i isse ya hakkyo ey kanta* 'Only if there is money does one go to school = you have to have money to go to school' and *Ppalli meke ya hanta* 'Only if we eat fast does it do = we have to eat fast';
- (5) followed by the participle *to* with the meaning 'even though' in such expressions as *Tōn i ēpse to kal sswu isse* 'It's possible to go even though you haven't any money', *Samci-chang ul sse to cōha yo* 'It is all right even though one uses a fork = it's all right to use a fork, you may use a fork', and *Nukkey wa to kwaynchanhe yo?* 'Is it all right even though we come late = may we come late?';
- (6) by itself at the end of a sentence to present a statement, question, command, or suggestion in the INTIMATE style;
- (7) followed by the particle *yo* at the end of a sentence to present a statement, question, command, or suggestion in the POLITE style.

The typical shape of the infinitive ending is *-e*, but the shape is *-a* if the last vowel of the base is *o* or *a* which is a reduction of a basic *o*. In the literary language, in literary clichés in the colloquial, and in the standard orthography prescribed by the Korean Language Society the ending is *-a* if the last vowel of the base is *o* or *a* (and occasionally, in the literary language, even if it is some other vowel). These non-standard or non-colloquial forms we will consider types of variants: *pat.a* is a variant for *pat.e* 'receives'.

The following alternations of base and ending call for special comment.

- (1) Bases of more than one syllable which end in *i* reduce the *i* to *y* before attaching *-e*: *kitali-*, *kitaly.e* 'waits for' (orthographically syllabified *ki-ta-lye*). But if the *i* is preceded by *c*, *ch*, or *s*, it completely disappears, since the combinations *sy*, *cy*, and *chy* do not normally occur [but cf. §2.4.8]: *kaci-*, *kac.e* 'holds, possesses'; *kaluchi-*, *kaluch.e* 'teaches'; *-usi-*, *-us.e* (honorific infinitive). Apparently the standard orthographic practice is to write the last syllable of these words as *-cye*, *-chye*, and *-sye*, but many Koreans write them the way they

sound as *-ce*, *-che*, and *-se*, and this variant spelling is permitted by the Korean Language Society. Bases of one syllable which end in *i* simply add *e*, and this is the way the standard orthography treats them: *tī-*, *tī.e* 'wears belt'; *chī-*, *chī.e* 'hits'; *swī-*, *swī.e* 'rests'; *phī-*, *phī.e* 'smokes'; *i-*, *i.e* 'equals' (copula). But for common fast-speech variants, cf. §§2.4.8–9. Many Koreans, hearing the intercalated semivowel (§2.4.7), write the last syllable of these infinitives as *-ye*; there is no possibility of confusion, unlike the practice of writing *-we* for the infinitives of bases ending in *wu* since these should be kept distinct from the infinitives of bases ending in *www* (§11.1.3).

(2) The inseparable processive auxiliary verb *ci-nta* 'becomes, inclines toward', which is used after adjective infinitives, has the infinitive *c.e*; this is a common desyllabification of the type discussed in §2.4.8 (with reduction of **cy.e* to *c.e* as above), but it is about the only one so recognized in the orthography.

(3) Bases which end in *u* (in bases of more than one syllable even when this is just a component of the vowel *wu*), drop *u* before adding *-e*: *ssu-*, *ss.e* 'writes'; *ttu-*, *tt.e* 'floats'; *pappu-*, *papp.e* 'is busy'; *ippu-*, *ipp.e* 'is pretty'; *pakkwu-*, *pakkw.e* 'exchanges'; *nanwu-*, *nanw.e* 'divides'. One-syllable bases ending in *wu* retain the *u* and add *-e*: *cwu-*, *cwu.e* 'gives' (but in rapid speech the *u* drops to leave *w*, especially when the word is not preceded by pause, cf. §2.4.8: *cw.e*). L-doubling bases (§11.2.2) drop *u*, but double the *l*: *pulu-*, *pull.e* 'calls'. Choice of *-e* or *-a* for the shape of the ending depends on the vowel of the ACTUAL preceding syllable: *molu-*, *moll.a* 'does not know'; *kophu-*, *koph.a* '(stomach) is empty, hungry'.

(4) Bases which end in *a* or *ay* add zero (nothing) to make the infinitive: *ka-*, *ka.0* 'goes'; *nāy-*, *nāy.0* 'puts out, pays'. The base *ha-* has the irregular infinitive *ha.y* (literary variants *ha.ye*, *ha.ya*), §11.4. The only bases which end in *-e* are *ile-*, *kule-*, *cele-*, *ette-*, and *amole-* 'do or say this way, that way, that way over there, what way, any way', and these have the infinitives *il.a-y*, *kul.a-y*, *cel.a-y*, *ett.a-y*, and *amol.a-y*.

(5) Bases which end in *-ey* or *-oy* add zero (nothing) to make the colloquial infinitive: *sēy-*, *sēy.0* 'counts'; *toy-*, *toy.0* 'becomes'. But the literary variant infinitive adds *-e* (often written *-ye*): *sēy.e*, *toy.e*.

(6) L-inserting bases (§11.2.3) insert an *-l-* before adding the infinitive ending: *ilu-*, *ilu-l.e* 'reaches'. The *l* is usually written as if part of the ending in the native spelling: *i-lu-le*.

The above 6 points all apply correspondingly to the attachment of the past morpheme (typically *-ess-*) as well as to the infinitive (typically *-e*). The following statements do not apply to the past morpheme.

(7) The K-inserting and N-inserting bases (§11.5) have a regular infinitive, and in addition a special one used only before the imperative particle *la*, with the shape *-k.e* or *-n.e*. Contrast *iss-k.e la* 'stay' (to a child) and *iss.ula* 'stay' (in a quotative construction), *o-n.e la* 'come' (to a child) and *o.la* 'come' (in a quotative construction).

(8) When the infinitive is followed by the polite-style particle *yo*, in relaxed

speech the final *-e* is usually pronounced *-ey* if preceded by *ss*, *ps*, *i*, *y* or the *s* of the honorific marker: *issey yo* = *isse yo* 'there exists', *mekessey yo* = *mekesse yo* 'we've eaten', *hakeyssey yo* = *hakeysse yo* 'I'll do it', *ēpsey yo* = *ēpse yo* 'there isn't any', *nay chayk iey yo* = *nay chayk ie yo* 'it's my book', *nay moca -(y)ey yo* (§8) = *nay moca -ye yo* 'it's my hat', *kasey yo* = *kase yo* 'someone honored is going'. In addition, there is *kathey yo* for *kathe yo* 'is the same' but no other examples for bases ending in *th* (*puthe yo* 'adheres to', *yethe yo* 'is shallow').

In the intimate style of speech, which places infinitives at the end of a sentence without the particle *yo*, many Koreans (especially women) often use the variant infinitives mentioned above as if the *yo* were still there: *issey* for *isse*, *mekessey* for *mekesse*, *hakeyssey* for *hakeysse*, *ēpsey*, *kasey*, *kathey*, etc.

(9) In the intimate style, the copula infinitive *ie/-ye* or *iey/-yey* (automatically *-ey* §8) is often pronounced *ia/-ya*,²⁹ especially in the speech of women: *nay chayk ia* = *nay chayk ie*, *nay moca -ya* = *nay moca -ye*.

(10) The variant polite copula *iey yo* is often shortened to *ey yo*: *chayk ey yo* = *chayk iey yo* 'it's a book'. In the abbreviated probable future construction which consists of the prospective modifier *-ul* + *ke* (abbreviation of *kes* 'probable or likely fact') + copula, the copula base usually takes the variant subphonemic shape of *y*: *hal kke -y* = *hal kke -(y)ey* = *hal kkes ie*, *hal kkes ia* 'will probably do' (intimate style); *hal kke -y yo* = *hal kke -(y)ey yo* = *hal kkes ey yo*, *hal kkes iey yo*, *hal kkes ie yo* 'will probably do' (polite style); *hal kke -yta* = *hal kke -ta* = *hal kkes ita* 'will probably do' (plain style); *hal kke -ymnita* = *hal kke -mnita* = *hal kkes imnita* 'will probably do' (formal style).³⁰

12.6. Extended forms. The EXTENDED ADVERSATIVE *-una-ma/-na-ma* 'but anyway' consists of the adversative ending *-una/-na* 'but' + an element *-ma*, perhaps the same as the assumptive *-uma/-ma* (§12.7), but more likely a shortening of the substantive form of *ha-* 'say' + the vocative-exclamatory particle *a*. Quotation is often a mere grammatical device in Korean. Cf. the variant construction for the particle *pota* 'than': *pota-m* < *pota ham* 'saying you look at and then'.

The EXTENDED SEQUENTIAL *-uni-kka (n) / -ni-kka (n)* consists of the sequential ending *-uni/-ni* 'as, since' + the attentive *-kka*, which is sometimes further extended by adding the reduced form *n* of the postvocalic shape *nun* of the 2-shape particle of reduced emphasis. The extensions are used to place stronger emphasis on the result mentioned in the connected clause.

The EXTENDED NOMINATIVE *-ki-ll-ey* consists of the nominative ending *-ki*

²⁹ Not to be confused with the homonymous and derivationally related particle meaning 'only if it be', despite the persistent confusion in the native orthography, which usually writes both forms as *i-ya*. Also not to be confused with the vocative-exclamatory particle *a/ya*.

³⁰ It may strike the reader as strange to find a 'word' which is not only less than a syllable, but even less than a phoneme, like *-y* above. Writing abbreviated word variants as separate words in accordance with their models is a result of the decision in §2.3 to focus the analysis on models rather than on shortened variants.

'the fact, the act, the doing, the being' + the particle *ey* 'in, at, to' with an insertion of *ll*, which seems merely to strengthen the meaning of *-ki ey* 'with the fact of doing; since, because'.

The EXTENDED APPERCEPTIVE *-kwun a* consists of the apperceptive + the vocative-exclamatory particle *a / ya* and may as well be written as two words.

12.7. Complex moods built on the substantive. The CONJUNCTIVE *-umye/-mye* 'does and' is a semi-literary clause-final mood used as a stylistic variant of the gerund *-ko* (especially when the sentence already has several smaller constituency breaks marked by the gerund), and probably consists of the substantive ending *-um/-m* (§12.14) + a reduction of the copula infinitive *-ye = ie*.

The EXTENDED CONJUNCTIVE OR CONDITIONAL *-umyen/-myen* 'if, whenever' (+ particle *se* 'while ..., at the same time; while ..., yet') seems to consist of the conjunctive *-umye/-mye* + the shortened variant of the particle of reduced emphasis *n = nun*.

The CONTINGENT, a semi-literary form meaning 'upon doing, as a result of doing', is simply the substantive *-um/-m* + the particle *ey* and can be treated as a sequence of two words: *Nay ka māl ham ey*, *Kim sensayng i nollasse* 'At my speaking, Mr Kim was startled'. The native orthography treats this as an ending with no smaller parts: *-u-mey/-mey*, or in a dialect variant of *ay* for *ey* (§2.4): *-u-may/-may*.

The ASSUMPTIVE expresses a willingness to do something for the listener and has two style forms: *-uma/-ma*, said to babies and young children, and *-umsey / -msey*, said to close friends: *Nay ka cwuma* 'Let me do it for you' (to a child), *Nay ka mekuma* 'I'll eat it for you' (to a baby); *Kulekhey hamsey* 'All right, I'll do it (for you)', *Swul mekumsey* 'I'm willing to drink some liquor—let's go have a drink then (since you seem to want to)'. The ending *-uma* seems to consist of the substantive + the vocative-exclamatory particle *a/ya* and might well be written as two words. The ending *-umsey* consists of the substantive + the suggestion ending (subjunctive assertive) of the familiar style *-s.ey*.

12.8. Complex moods built on the prospective modifier. The INTENTIVE mood *-ulye/-lye* 'with the thought in mind to, with the intention of' (often followed by the verb *ha-nta* 'says, thinks' or the quotative particle *ko* derived from the gerund of that verb) seems to consist of the prospective modifier + an element *ye*, probably the reduced form of the copula infinitive *ie*. The PURPORTIVE mood *-ule/-le* is apparently a shortening from the intentive, and is used only in conjunction with verbs of movement (such as *ka-nta* 'goes', *o-nta* 'comes') with the meaning 'for the purpose of'. The native orthography syllabifies *-u-lye/-lye* and *-u-le/-le*.

The FRUSTRATED INTENTIVE *-ulyen-man (un) / -lyen-man (un)* is a semi-literary expression with the meaning 'I had hoped that ... but' or 'should have ... but': *Pom i wa*, *im to olyen-man un*, *acik sosik to ēpkwun a* 'I had hoped my lover would be back, come spring, but I still have no news'. *Apeci ka ppalli osimyen cohulyen-man un ...* 'I wish Father would hurry back (but ...)'. This ending is spelled *-u-lyes-man* in the native orthography; it seems to be a longer form of the intentive (on the *s* for *n*, see §5, §14) + the particle *man* 'just, but'

which is followed by the particle *un* to deemphasize the clause, and thereby reinforce the emphasis of the following clause.

The PROSPECTIVE ASSERTIVE and PROSPECTIVE ATTENTIVE *-ul-ita/-l-ita* and *-ul-ikka/-l-ikka* are synonyms for the future assertive and attentive forms, respectively: *Nwu ka halikka*. *Nay ka halita = Nwu ka hakeynni*. *Nay ka hakeytta* 'Who will do it? I'll do it.' These endings consist of the prospective modifier + the copula base *i-* + the assertive ending *-ta* and the attentive ending *-kka*, respectively. Notice that *i-ta* occurs as the PLAIN indicative assertive, but *-i-kka* does not occur elsewhere; the plain indicative attentive of the copula is *i-n.i*.

The INTENTIVE ASSERTIVE *-ul-yetta/-l-yetta*, written *-(u)l-yes-ta* in the native orthography, is a semi-literary form which seems to mean probable future: *Pi ka wa to*, *ku i nun olyetta* 'He must be coming (I think) even if it rains', *Nayil ccum un pi ka olyetta* 'By tomorrow it will probably rain.' The ending consists of the prospective modifier + the extended element *-ye-s-* (also found in the frustrated attentive above) + the assertive ending *-ta*.

The CAJOLATIVE *-ulyem (una) / -lyem (una)* is an endearing imperative used by mothers to children: *Mekulyem (una)* 'Do please be a good boy and eat now'. The ending consists of the intentive *-ulye* + the substantive *-um/-m* (or the shortened form of the substantive *ha-m* 'saying'). It is often followed by a 'softening' particle *una/na*, also heard after the adverbial *-key* which is used for the familiar-style command: *ankkey na* 'won't you have a seat'.

12.9. Adjunctives. The PROSPECTIVE ADJUNCTIVE *-ulla/-lla* is a 2-shape ending which consists of the prospective morpheme + the attentive ending *-ula/-la*. The PROGRESSIVE ADJUNCTIVE *-nula* is usually treated as a 1-shape ending and consists of the processive morpheme *n ~ nun* + the attentive ending *-ula ~ -la*. But one substandard variant treats the processive adjunctive as a 2-shape ending *-unula/-nula*, as if it were the plain modifier *-un/-n* + the attentive. The meanings of both adjunctives are about the same 'what with doing': *Kongpu halla (hanula)*, *cam cal ssay ka ēpse* 'What with studying, I have no time to sleep', *Kongpu halla (hanula)*, *phyēnci ssulla (ssunula)*, *cam cal ssay ka ēpse* 'What with studying and writing letters I have no time to sleep'.

12.10. Complex moods built on the incorporated postmodifier *ke(s)*. The postmodifier *ke(s)* means 'probable, likely or tentative fact'. It is incorporated into certain complex moods, which are attached as one-shape endings directly to a base (or to the past or future morphemes).

The TENTATIVE ADVERSATIVE *-ke-na* consists of *ke* + the copula adversative *ina* 'equals but; or the like; or' in its postvocalic shape *-na*. This form is often used in contradictory pairs with the meaning 'whether ... or ...' in much the same way as the ordinary adversative: *Pi ka okena, mālkena, hakkyo ey kanta = Pi ka ona, māna, hakkyo ey kanta* 'I go to school whether it rains or not.'

The TENTATIVE SEQUENTIAL *-ke-ni* consists of *ke* + the copula sequential form *ini* 'as it equals' in its postvocalic shape *-ni*. The general meaning is something like 'with the likely fact that' and we can distinguish three usages: (1) as a literary equivalent of the simple sequential; (2) followed by *hanun sayngkak*

(+ particle *ey* or *ulo*) 'with the thought that probably': *Cikum ccum un phyēnci ka wa ikkeni hanun sayngkak ey ppalli cip ulo wasse* 'I hurried home with the thought that the letter would likely be there by this time'; (3) as phrases in sequence meaning 'what with doing one thing and doing something else': *Cwukeni, pakkeni, yāyki ka kkuch i ēpsesse* 'What with my telling him ("giving") and his telling me ("getting") there was no end to our talking'—cf. the use of the adjunctive §12.9. The tentative sequential also occurs followed by the particle *kwa* / *wa* 'and, with'. The combination *-ke-ni wa* means 'together with the likely fact that' or 'as well as, besides; admitting that; not only ... but also': *Ku haksayng un wuntong to cal hakeni wa, kongpu to cal hanta* 'That student studies hard, as well as being good at sports', *Ku ke n kulekheni wa ...* 'Be that as it may ...', *Ku salam un pam nukkey ca se colakkeni wa, na nun wāy colattun ci āsey yo?* 'He was sleepy because he went to bed late at night, but do you know why I used to be sleepy?'

The PROVISIONAL *-ket-un* (variant *-ket-ullang*) seems to consist of the incorporated postmodifier *kes*, interestingly in its phrase-final form *ket* (we should expect a final *s* in this construction) + the particle of reduced emphasis *un* / *nun*. (*Ullang* is an archaic and vulgar variant for *un*.) Another possible analysis is *ke* + *-tun*, a reduction of the retrospective modifier of either the copula *i-tun* or *ha-tun* 'says; is' (i.e. 'looking back on its being the probable fact that = if'). The meaning is something like 'if, provided that', and the form seems to be followed always by a command or suggestion: *Sensayng ul mannaketun, kulekhey mālssum tulye cwusipsio* 'If you see the teacher, please tell him that.' The same sentence could be said, with little difference of meaning, using the conditional form *man-na-myen* 'if you meet'. But the conditional also occurs followed by forms other than command and suggestion.

The TENTATIVE CONDITIONAL *-ket-umyen* is a non-standard dialect form equivalent in meaning to the ordinary conditional. It consists of *kes* (again in its phrase-final form *ket*) + the extended conjunctive (conditional) ending *-umyen/-myen*.

The LITERARY CONDITIONAL *-ken-tay* perhaps consists of *ke* + the copula modifier *in* in its postvocalic shape *-n* + the postmodifier *tay* 'just as; original state' or a dialect variant of the postmodifier *tey* 'circumstance'; or it may consist of *ke* + the verb *hanta* 'says' + the infinitive *hay* 'doing, saying' (i.e. *-ke-nta-y* = **-ke hanta hay*). In the colloquial, this form is heard only in a few clichés: *Sayngkak haketay ...* 'Come to think of it ...', *Camssi tola pokentay ...* 'Looking back for a moment ...'

The SEMILITERARY CONCESSIVE *-ken-man* (*un*) is equivalent in meaning to the construction *-ci man* (*un*) 'even though, although', and it seems to consist of the incorporated postmodifier *kes* (automatically taking the shape *ken*) + the particle *man* 'extent, only to the extent, just, but': *Ku nun kongpu nun cal hakenman, tāyseng un mōt hal kke -yta* 'Even though he studies very hard, I don't think he can have any great success.' There is an archaic LITERARY CONCESSIVE *-kenul* which seems to consist of the direct-object particle *ul* (in its antithetical use) attached to *ken*, an anomalous form of *kes*. Other examples of

the antithetical use of the direct-object particle are: *Māl ul hal kkes ul* 'I wish I'd spoken (but I didn't)', ... *kūcel hanun kes ul, pumo ney ka ... cangka lul tulkey haytta* 'Although he refused, his parents made him get married.'

The TENTATIVE ASSERTIVE *-ket-ta* (in the native orthography *-kes-ta*) consists of *kes* + the assertive ending *-ta*. This is used to enumerate a sequence of reasons arguing against a rhetorically questioned conclusion: *Tōn ikketta, him ikketta, musun kekceŋ iyo* 'You've got money, you've got power, so what's your worry?!' The ending is sometimes pronounced *-keytta* and it is then homonymous with the plain future (orthographically *-keyss-ta*). One other meaning for the form is 'I suppose, I assume'; this seems to be a synonym (mostly literary) for the probable future: *Ne, i tongnay ey salketta* 'You, I suppose, live in this village?'

The IMMEDIATE FUTURE *-kkey* is a reinforced form of *ke* with perhaps an abbreviated shape of the particle *i* or the copula base *i-*. It occurs, for example, when someone drops something and another person reaches for it with the accompanying remark *Nay ka cipkkey* 'I've got it!' It is not to be confused with the intimate-style form of the probable future *-ul kke -y*, sometimes hurriedly pronounced *-ukkey*, with the *l* dropped: *Nay ka cipu(l) kke -y* 'I'll get it'. After a vowel base, the reduced form of the probable future coincides in shape with the immediate future, so that it is difficult to tell which is present in an example like *Camkkan katta okkey. Kitalisiko issey yo* 'I'll be gone for a minute (and then come back). Wait (here).'

12.11. Transfervative mood. The transfervative mood *-ta* (frequently followed by the particle *ka*) indicates CHANGE or SHIFT of action—a reversal, nullification, or unanticipated and unrelated consequence if attached to the past marker, usually an interruption otherwise: *Ceki katta (ka) wasse* 'I've been there (I went and then came back)', *Pi-ssan moca lul satta (ka) ssan moca lo pakkwesse* 'I bought an expensive hat but then exchanged it for a cheap(er) one', *Cang ey kata ka uphyenkwuk ey tullil kka yo, cang ey katta ka uphyenkwuk ey tullil kka yo* 'Shall we (interrupt ourselves to) drop in at the postoffice when we go to market, or shall we go to market and then (shift our action to) drop in at the post-office?', *Kwutwu lul sintta ka, kwutwu kkun ul kkunhesse* 'When I was tying my shoe (this was interrupted by a shift to the fact that) I broke my shoestring'. When two past transfervatives are followed by a form of *hanta* 'behaves', the meaning is that of alternation: *Salam i katta watta haysse* 'People came and went; people kept coming and going', *Nay ka capci lul ilketta latio lul tuletta haysse* 'I was reading magazines and listening to the radio off and on', *Kim sensayng i ilketta, nay ka ilketta, hay* 'First Mr Kim reads and then I read, and so on, back and forth'.

The transfervative of the copula *ita* (*ka*) / *-ta* (*ka*) is often used after particles of location to show a shift of location: *Kōl pang ey -ta kelesse* 'He hung it in(to) the closet', *Sang wu ey -ta nohasse* 'He put it on the table', *Congi ey -ta sse* 'He writes it on the paper'. Notice also *Mues ey -ta sse* 'What's it used for?' This form is often inserted between an infinitive and a verb of giving to emphasize the shift of benefit in the favor reported: *Ku chayk ul pillye -ta cwuesse* 'He did someone the favor of lending the book', *Sensayng nim kkey Cosen ūmsik ul*

mayntule -ta tulikessumnita 'I'll make some Korean food for you, sir.' It is also used to show a shift of direction after the infinitives *che* 'ascends' (an archaic base *chi-*, little used except in this expression and a few derived words), *kenne* 'crosses' (*kennu-*), *nāy* 'puts out' (*nāy-*), *naylye* 'descends' (*nayli-*), *nemkye* 'transmits, puts over' (*nemki-*), and *tulye* 'puts in' (*tuli-*): *Che -ta ponta* 'He looks up', *Kil ul kenne -ta ponta* 'He looks across the road', *Chang pakk ul nāy -ta ponta* 'He looks out the window', *Naylye -ta ponta* 'He looks down', *Tam wi lo nemkye -ta ponta* 'He looks over the wall', *Pang ul tulye -ta ponta* 'He looks into the room.'

It will be observed that the ending of the transferentive is homonymous with one of the assertive endings *-ta*, and all of the forms are the same, with the exception of processive base + *-ta* (e.g. *tat-ta* 'interrupts closing') which has no homonym in the colloquial ('closes' in the plain style is *tan-nun.ta*, the processive assertive). The two moods contrast in the example *Katta watta hay* which can mean either 'They are going and coming (alternately)' or 'He says he is back (has gone and then come back).' It might be said that the transferentive is simply the assertive (or indicative assertive) + the particle *ka* and that the occurrences without the particle are simply abbreviations of this more complex expression. In other words, *Katta watta hay* means 'They are going and coming' when we can substitute *Katta ka watta ka hay* with no apparent difference of meaning, and it has the other meaning when we can not insert the second *ka*.

12.12. Concessive mood. The concessive is a one-shape ending *-toy* which consists of the particle of reinforced emphasis *to* 'also; even' (attached directly to the base instead of placed after the infinitive, as we should expect) + a shortening either of the infinitive *hay* 'says' or of the subject particle *i*: *-to -y*. The meaning is about the same as the infinitive + *to* 'although': *cap-toy* = *cape to* 'even though someone catches.' A dialect variant treats this as a two-shape ending *-utoy/-toy*. Cf. Choy, *Wuli mal pon* 179-80.

12.13. Gerund constructions. The gerund occurs: (1) linking two clauses with the meaning 'and also'; (2) as a connecting form directly linked with an auxiliary verb; (3) occasionally preceding a particle, e.g. *hako ya male* 'must do it.' The gerund also occurs in two constructions which are often regarded as separate endings.

The HABITUAL consists of the gerund + the shortened form *n* of the particle of reduced emphasis (the unabbreviated form *nun* substitutes freely in this construction): *Sanppo lul kako n(un) haysse* 'I used to take walks.'

The LITERARY DESIDERATIVE consists of the gerund + the infinitive *ce*, often followed by *ha-ta* (here = colloquial *ha-nta* 'behaves'). *Ci-* 'incline toward' is a verb base limited to certain usages, the most common of which is as an auxiliary after the infinitive of a descriptive verb with the meaning 'get to be, become' as in *hulye ci-nta* 'gets to be cloudy'. Historically, this *ci-* is probably related to the suspensive mood *-ci*, which is used in negative constructions and in the casual style where the uncertainty is reflected in such English translations as 'I suppose; I daresay; you know; don't you know; isn't it; suppose we do; suppose you do' etc., and to the postmodifier *ci* 'uncertain or questioned

fact' which is used in indirect questions and also in constructions like *Ka pon ci olay toy* 'It's been a long time since I've been there' and *Nal i ettekhey chwuwun ci nwun ey se nwun mul i na onta* 'The weather is so cold tears are coming out of my eyes.'

The expression *-ko ce* (*ha-ta*), then, is the literary analog of the colloquial expression *-ko siphe ha-nta* 'is desirous of', but semantically it seems closer to the colloquial intensive *-ulye* (*ko ha-nta*) 'with the intention of': *Kako ce, ilccuki ile nasse* = *Kalye ko, ilccuki ile nasse* 'I got up early, with the idea of going.' A dialect variant is *-ko ca*; cf. the infinitive variant *-a* for *-e*, §12.5.

The various apperceptive elements *kwumen*, *kwulye*, etc. are to be regarded, historically, as shapes of a complex mood based on the gerund *-ko* (in its Seoul dialect form *-kwu*) + the particle *man* 'just, but' (in a dialect variant *men*), or + an abbreviated shape of one of the intensive forms *ha-lye* 'with the idea to say' or *i-lye* 'with the idea to equal.'

12.14. Substantives and derived substantives. The substantive mood *-um/-m* is used: (1) as the complementary object of some other form of the same base: *cam ul ca-nta* 'sleeps (a sleep)', *chwum ul chwu-nta* 'dances (a dance)'; (2) with the particle *ulo* to mean 'because': *Kongpu cal hayssum ulo cal ālci* 'I studied hard, so I know it well, you see'; (3) occasionally with other particles (cf. the assumptive §12.7) and before the copula, e.g. *sēy-m* 'calculation' as a post-modifier in expressions like *Kwisin ul pon sēym innikka?* 'Do you figure you were seeing a ghost?' (4) sentence-final in the DOCUMENTARY STYLE of written Korean.

Some *w*-bases have variant shortened substantives in *-m* instead of in *-w-um*: *muse-m* or *musew-um* 'fear', *etwu-m* or *etwuw-um* 'darkness', *kwiye-m* or *kwiye-w-um* 'cuteness', *pukkwule-m* or *pukkwulew-um* 'shame', *pule-m* or *pulew-um* 'jealousy'. Base-final *w* seems to be a derivative suffix, and this may account for the alternation. But not all *w*-bases have the shortened variant: there is only *miw-um* for 'hatred'.

In addition to the abbreviated variants, which are freely interchangeable with the longer forms in all environments, there are a few irregularly formed DERIVED SUBSTANTIVES which are limited in that they do not occur before *ulo* in the construction meaning 'because': *swū-m* 'breath, breathing' from *swi-* (*swūm ul swūm ulo* 'because someone breathes a breath'), *th-um* 'opportunity' from *tha-* (*thum ul tham ulo* 'because someone takes advantage of an opportunity'), *mok-um* 'puff, sip' from *mek-* (*mokum ul mekum ulo* 'because someone takes a puff'); *cwuk-em* 'corpse, death' from *cwuk-* 'die'; *mut-em* 'tomb, grave' from *mut-* 'bury'; *sal-am* 'person' from *sā-l-* 'live' (cf. the regular substantive *salm* 'life'); *cok-om* 'a little' (shortened variant *com*) from the descriptive base *cek-* 'be small, few'; *mak-am* 'terminal date, deadline' from *mak-* 'stop up, obstruct'.

12.15. Derived adverb-noun forms. The adverbial mood ends in *-key* and means 'so that'; it is attached to any inflecting base, and the resulting form is syntactically an adverb. In addition, many bases have a form we can call the DERIVED ADVERB-NOUN; this is made by attaching to the base either the suffix

-i, -li, or the suffix -o, -wu. Not every base has such a form today, so we can not make up expected forms without knowing in advance whether they are actually used. For this reason, we call this a derived form, rather than a part of the regular inflectional system. The usual mood suffixes attach to any base, so that we can make up quite acceptable forms without having heard them before.

Most adverb-noun forms are syntactically adverbs (*ppalli* 'fast', *nemu* 'overly, too', *caco* 'often'), but some are rarely used in absolute constructions: *khi* 'height', *noli* 'game', *tōn-pēli* 'earning money'. *Kiphi* means both 'depth' and 'deeply'. For purposes of syntax, we can divide the group into adverbs and other nouns, but for purposes of shape study they can be kept together as derived adverb-noun forms. The only instance where there might be doubt about the complementary distribution is that of *nelli* 'widely' and *nelpi* 'width'. But the adverb can be considered derived from the causative verb *nel.li*- 'widens, makes wide' (§15) rather than directly from the adjective *nelp*-.

There are certain peculiarities in attaching the suffixes:

(1) The final *w* of some consonant bases drops: *kakka-i* 'nearby, vicinity' from *kakkaw*- 'be near'. But not all bases drop the *w*: *tēw-i* 'warmth' from *tēw*- 'be warm'. Of *kyewu* 'hardly, barely' from *kyew*- 'be hard to bear, excessively subject to' we can say it is either *kyew*- + *-u* or *kye*- + *-wu*; the latter analysis seems more consistent. The inseparable postnominal descriptive verb *sulew*- 'be, give the impression of' drops not only the *w* but, in everyday speech, usually the preceding vowel as well: *kapcak sulew*- 'be sudden', *kapcak suli* 'suddenly'. But there is a variant *kapcak suley* in which *w* drops and the *i* suffix is reduced to *y*.

(2) A final *u* of a vowel base drops: *papp-i* 'busily, briskly' from *pappu*- 'be busy', *puph-i* 'bulk' from *puphu*- 'be bulky', *kh-i* 'height' from *khu*- 'be big', *mot-wu* 'all' from *motu*- 'gathers', *pal-o* or *pal-wu* 'right, directly' from *palu*- 'is right, on the right'.

(3) The suffix -i is attached in the alternant -li to the EXTENDED shape of some L-extending bases: *mēl-li* 'afar' from *mē-l*- 'be far'. But not to others: *kil-i* 'length; lengthily' from *kī-l*- 'be long', *nol-i* 'game' from *nō-l*- 'play'. The suffix is attached in the alternant -li to the single-l shape of L-doubling bases (or, we can say it is attached in the alternant -i to the double-l shape): *ppal-li* 'fast' from *ppalu*- 'be fast', *tal-li* 'differently' from *tal-u*- 'be different'.

(4) The descriptive base *ha*- 'be' has the irregular form *h-i*. Since the *h*, and even the entire syllable *ha*- of this base is so often abbreviated in ordinary speech, the word *hi* frequently sounds like *i*, and some Koreans write it this way.³¹

(5) The descriptive base *mukew*- 'be heavy' has the derived noun form *muke-y* 'weight', in which the suffix is reduced to the phoneme component *y*.

Here are a few more examples: *ilccuk-i* 'early' from *ilccuk*- 'be early', *ēps-i*

³¹ Since *h* frequently drops between typically voiced sounds, many Koreans confuse the ENDING -i with the word *h-i* (the base *ha*- + the ending -i). As a result, one finds anomalous forms like *kohi* (variant) = *koi* (standard spelling) = *kow-i* 'nicely', the derived adverb of *kow*- 'be nice, pretty' (cf. §2.4.7).

'without' from *ēps*- 'be non-existent', *noph-i* 'highly; height' from *noph*- 'be high', (-ta) *siph-i* 'so that one is inclined (to)' from *siph*- 'be inclined', *tolo* 'back' from *tō-l*- 'turn', *ttal-o* 'separately' from *tal-u*- 'be different' (with intensive reinforcement, §14), *may.wu* 'very' from *mayw*- 'be hot-tasting', *nem-[w]u* 'overly' from *nem*- 'exceed, go over', *cac-o* or *cac-wu* 'often' from *cac*- 'be continual, repetitive', *mac-wu* 'opposite, vis-a-vis' from *mac*- 'meet, fact', *sey-wu* 'very; often' from *sey*- 'be strong'.

The word *kachi* means two things: 'like' and 'with'. When it means 'like' the word either follows a noun immediately as particles do (*na kachi* = *na chelem* 'like me'), or is separated from the noun by the particle *kwa* / *wa* or its colloquial synonym *hako* (*na wa kachi* = *na kachi* 'like me'). When it means 'with' the word is always separated from the noun by the particle. Koreans spell the word as *kath-i* when it means 'like' and as *ka-chi* when it means 'with'. (On the alternation *th* + *i* = *chi*, see §7 fn 13.) One problem is whether to count *kachi* as an adverb when it means 'like'. If the word is a noun used in absolute position and modified by the preceding noun ('a likeness of me') it forms a unique case in which the nouns *na* and *ce* 'I' do not have their alternant shapes *nay* and *cey* (see §16). But if the *kachi* of *na kachi* 'like me' is a particle, what of *na kathe* 'it is like me' and other inflected forms of *kath*-? It would seem the best solution to regard *na kath*- as a variant of *na wa kath*-, an abbreviation which occurs only with the first of the two meanings of this expression.

Some other forms which seem irregular are probably to be explained as abbreviations. *Ili* 'this way', *kuli* 'that way', *celi* 'that way over there', *ecci* 'what way' are perhaps best treated as shortened forms of *ile hi*, *kule hi*, *cele hi*, and *ette hi* from *ile ha*- 'be this way', *kule ha*- 'be that way', *cele ha*- 'be that way over there', and *ette ha*- 'be what way'. *Ile*, *kule*, and *cele* themselves look like infinitives of defective bases *i-l*-, *ku-l*-, and *ce-l*-, in which we see the demonstrative pre-nouns *i*, *ku*, and *ce*. The base *ku-l* turns up also in *kulssey* 'well, let's see now', with the subjunctive assertive ending of the familiar style -*sey*, and *i-l*- may perhaps be present in *ilu*- 'tell, say' (§11.2.3).

The word *mōllay* 'in secret' is from *mōlu*- 'not know' (itself an amalgamation of *mōs* + *ā-l*-); it could be explained as a shortening of the infinitive *mōlla* + the infinitive *hay* 'does'—*nam mōllay* 'without others' finding out' i.e. 'others not knowing, someone does (and)'. The word *ppallay* 'laundry', however, can not be explained in this way because of the double *l*; the infinitive of *ppa-l*- 'launder' is *ppal-e* (literary variant *ppal-a*). So it may be best to say that in addition to -i and -li, the suffix has also the shape -ay. Or we could regard *mollay* as a derived noun based on the infinitive + -y, a reduced variety of the suffix -i. The form **ppalla* probably exists as a dialect variant of *ppale*. Other cases which could be interpreted as infinitive or variant infinitive + -y are *kallay* 'faction' from *kalu*- 'divide', *makay* 'stopper' from *mak*- 'stop up', *nolay* 'song' from *nō-l*- 'play', *kalay* 'spade' from *kā-l*- 'till, plow', *casay* 'reel' from *cas*- 'spin', and *patay* 'bottom piece' from *pat*- 'take, support'. Kimun Hong (187) regards -ay as an alternant of the nominalizing suffix -*kay* 'device' found in *peykay* 'pillow' from *pēy*- 'rest head on', *cikay* 'A-frame carrier' from *ci*- 'carry on back',

kamkay 'spool' from *kam-* 'wind', *ssukay* 'headgear' from *ssu-* 'wear on head', *ssakay* 'wrapper' from *ssa-* 'wrap', *cipkay* 'tweezers, tongs, forceps' from *cip-* 'pick up', *nalkay* 'wing' from *na-l-* 'fly', *kwi-hwupikay* 'ear-pick' from *hwupi-* 'poke', *i-sswusikay* 'tooth-pick' from *sswusi-* 'poke', *kkwumikay* 'fringe' from *kkwumi-* 'decorate', *colikay* 'wringer' from *col-i-* 'wring', and *tepkay* 'covering, lid (dialect for *ttwukkeng*)'; covering, bedding (dialect for *ipul*)' from *teph-* 'cover with'.

In combinations of a descriptive verbal noun which ends in a basic *s* + the word *hi* there are three variant treatments, exemplified by *kkaykkus hi* 'cleanly': (1) The excess *s* is (as expected) treated as *t*, and *t* + *hi* (like *th* + *i*, §7) = *chi*: *kkaykkut hi* (*kkaykkuchi*). (2) The *h* is dropped: *kkaykkut -i*. [This is apparently rare for Seoul speakers.] (3) The *h* is dropped and the *i* is treated as if a particle or suffix: *kkaykkus -i*. For bound descriptive verbal nouns, only the latter treatment has been observed: *tus -i* 'as if' (*tus ha-ta* 'gives the idea or impression of').

13. Alternation types. The major systematic alternations of Korean can be summarized under five types: REDUCTION, ASSIMILATION, METATHESIS, FORTITION, and REINFORCEMENT. As used here, these terms do not refer to historical processes (as such), but to categories of alternation in the present-day structure.

The treatment of syllable excess (§7) is primarily a matter of REDUCTION, in which anomalous consonant clusters are avoided by reducing an extrasyllabic sequence at the end of a morpheme to a phoneme which occurs at the end of a syllable. This phoneme is, in turn, subject to other alternations according to its environment. The reduction is extended to a number of cases in which no anomalous cluster would result, since the following element begins with a vowel (*kap olumyen* 'if the price rises'); in most of these situations, the element which begins with a vowel is freely separated from the preceding element by an intervening pause. Other examples of reduction are the treatment of the sequence *yey* (§8), and the phonemically determined alternations of *t* or *p* + *ph* = *ph*, *t* or *p* + *pp* = *pp*, etc. (Table 1, §5), in which either /t/ or a phoneme which is the same as the first phoneme in an initial cluster with /h/ or /q/ (*pp* = /pq/) drops.

The principal cases of genuine ASSIMILATION are limited to the nasalization or lateralization of a preceding consonant by a following *m*, *n*, or *l* (Table 1, §5): *p* + *m* = *mm*, *t* + *m* = *nm*, *k* + *m* = *ngm*, *p* + *n* = *mn*, *t* + *n* = *nn*, *k* + *n* = *ngn*, *n* + *l* = *ll*. In the case of *p* + *l* = *mn* and *k* + *l* = *ngn* (an expected *t* + *l* is rare, and usually separated by pause), we have two levels of alternation: *l* is treated as *n* (a case outside our five types—see alternations of *l* and *n*, §9), and the preceding consonant is nasalized.

Our notation is so designed to make phonemically determined alternations of the type *t* or *p* + *p* = *pp*, *t* or *k* + *k* = *kk*, etc. (Table 1, §5) look as if they were assimilation. Actually, however, since our notation *pp* = /pq/, *kk* = /kq/ etc., these situations are more complex: a combination of FORTITION and METATHESIS. By fortition I refer to the replacement by /q/ of syllable-final, *p*, *t*, or *k*. This /q/ is then subject to metathesis with the following *p*, *t*, *s*, *c*, or *k*.

In other words, the morph composition of a word like *mekko* 'eating' is not really *mek.ko*, but something like this: *me ... q* (a phonemically determined alternant of *mek-*) + *k ... o*, in which the three dots represent the metathesis. We find it convenient to simplify statements of morph composition by using the notation *pp*, *tt*, *ss*, *cc*, and *kk* (partly morphophonemic) and so treat cases of fortition + metathesis as simple assimilation.

But for bases which end in *h*, recognition of the metathesis is unavoidable: *cōkho* 'being good' = *cō ... h* + *k ... o*. The suggestion to treat S-dropping bases as ending in a basic *q* (§11.1.5 fn 17) is by analogy: *nākho* 'getting better' = *nā ... q* + *k ... o*. The reasons Koreans consider the S-dropping bases to have a basic *s* (rather than a basic *t*) are partly historical and partly due to the small number of elements ending in a basic *t* (see the list in §7). Most instances of syllable-final /t/ are alternants of a basic *s*, so that the Korean tends to equate syllable-final /t/ with syllable-initial /s/. This is also the basis for the Korean treatment of one type of reinforcement as a morph-extending *s* rather than *t* (§14).

Fortition refers to the replacement of a consonant by /q/; REINFORCEMENT is the addition of the phoneme /q/. This occurs as a grammatically conditioned automatic alternation when an ending shape beginning with a voiceless consonant is attached to a base shape ending with a typically voiced consonant (*m*, *n*, or an *l* reduced from syllable excess, §11.1.1): *kam-* 'shampoo' + *-ko* (gerund) = *kam-kko* /kamkqo/. For other occurrences of reinforcement, see §14, and the prospective modifier in §12.4.

14. The occurrence of reinforcement. In addition to grammatically conditioned automatic alternation in the inflectional system, there are widespread occurrences of reinforcement as a tactical device and as a derivational process. There are at least two morphemes with the basic shape /q/: one a syntactic marker, and the other a derivative infix.

The syntactic marker occurs in many (but not all) cases of noun + noun, in which the first noun modifies the second, when the nouns are not actually separated by the pause which is usually facultative in these constructions. We can distinguish two types.

In the first type, the morpheme occurs only in the shape /q/ and is usually ignored in the native orthography (unless the preceding word ends in a vowel, and then it is treated as the second type, below), despite its unpredictability. The reinforcement is more common after a vowel or a typically voiced consonant: *ayki kkes* 'the baby's things' (*kes* 'thing'), *ecey ppam* 'last night' (*pam* 'night'), *elma ttongan* 'how long a period' (*tongan* 'period'), *cha ccip* 'tea house' (*cip* 'house'); *taum ppang* 'next room' (*pang* 'room'), *sangcem ccali* 'store site' (*cali* 'site'), *Cosen ssalam* 'Korean person' (*salam* 'person'), *i pen kkaul* 'this Fall' (*kaul* 'autumn'), *mun kkwa* 'literature department' (*kwa* 'department'), *Kim sensayng ttayk* 'Mr Kim's house' (*tayk* 'honored house'), *pang kkaps* 'room charge' (*kaps* 'price'). But it sometimes occurs after voiceless consonants: *Cwung-kwuk ssalam* 'Chinese person', *kwuk cca* 'the character read *kwuk* [country]' (*ca* 'character', cf. *kwukcca* 'vernacular script'), *cenyek ppap* 'evening meal' (*pap*

'rice, food'), *mikok ssang* 'rice dealer' (*sang* = *sangin* 'merchant'). A similar type of unpredictable reinforcement, also ignored by the Hankul spelling,³² occurs within a word, at the point of contact between two morphs: *hēm.ppep* 'constitution' (morph *pep* 'law'), *san.ppo* 'stroll' (morph *po* 'step'), *sēng.kkyek* 'character' (morph *kyek* 'status'), *ip.ttay* 'joining an outfit' (morph *tay* 'military outfit'), *ip.ccang* 'admission' (morph *cang* 'place'), *tay.hap-ssil* 'waiting room' (morph *sil* 'room'), *yek.ssa* 'history' (morph *sa* 'history'), *kwuk.cca* 'vernacular script' (morph *ca* 'character').^{32a}

After the phoneme *l*, this type of tactical reinforcement is especially common: *onul ppam* 'tonight' (*pam* 'night'), *yel twül* '12' (*twül* '2'), **Sewul kkukkyeng* 'seeing Seoul' (*kwukkyeng* 'seeing'). But it seems rare within a word except for *s* and *c*. The reinforcement of *s* and *c* after an *l* is extremely common, both within a word and between words: *onul ccenyek* 'this evening' (*ccenyek* 'evening'), *sil.ccey* 'reality' (morph *cey* 'circumstance'), *yel ssikan* '10 hours' (*ssikan* 'hour'), *sil.ssup* 'practice' (morph *sup* 'practice'). In fact *l* + *s* almost automatically results in *lss*; the only clearcut exceptions I have found are of the type *Sewul se* 'from Seoul' (noun + particle) and *Cosen māl sensayng* 'Korean-language teacher' (noun phrase + noun). After the final *l* of the prospective modifier (§12.4), a reinforceable consonant is always reinforced (unless the facultative pause between the words actually occurs): *mekul ppap* 'food to eat' (*pap* 'food'), *mekul ttalk* 'a chicken to eat' (*ttalk* 'chicken'), *mekul ssalam* 'a man to eat' (*salam* 'person'), *mekul ccēmsim* 'the lunch to eat' (*cēmsim* 'lunch'), *mekul kkoki* 'meat to eat' (*koki* 'meat').

The occurrence of this first type of syntactic marker seems to be determined (if at all) by the SECOND element. That is, if the morpheme is to be localized in one constituent or the other, it should be in the second. *Ecey ppam* 'last night' contains the immediate constituents *ecey* 'yesterday' + *ppam* 'night', and *ppam* in turn contains the immediate constituents *p ... am* and *...q...*. The statement that the likelihood of reinforcement in a particular sequence is tied to the second element is based on my observation that certain morphs and words have a high

³² For some reason the native orthography gives *swu-kkalak* 'spoon' (*swu*, variant/alternant of the Chinese loanmorph *si* 'spoon' + *kalak* 'stick') the anomalous spelling *swut-ka-lak*. We should expect the first syllable to be *swus*: cf. *ces-ka-lak* for *ce-kkalak* 'chopsticks' (Chinese loanmorph *ce* 'chopsticks' + *kalak* 'stick'). Since this writing, I have been informed that Korean grammarians regard *swut-* as an alternant of *swul* 'spoon'. The grammarians apparently consider this *l/t* alternation to be parallel to the alternation of consonant verb bases ending in *l* (§11.1.4). Another explanation would be to derive *swukkalak* from a hypothetical **swul kkalak*, with the common tactical reinforcement described in §14, followed by the dropping of final *l* described at the beginning of §16. But the simplest solution is probably that suggested by Yuncay I's dictionary, which treats *swul* as an abbreviation of *swukkalak*; *cekkalak* has a parallel abbreviation *cel*, so both should be treated the same way. This removes any objection to my treatment (*swu* + *...q...* + *kalak*, *ce* + *...q...* + *kalak*).

^{32a} There are apparently two morphemes corresponding to the single etymon meaning 'letter' or 'word': (1) *ca* as in *mun.ca* 'idiom', (2) *ca ~ cca* as in *mun.cca* 'letter'. An alternative is to regard *mun* as two different morphemes, one meaning 'language' and the other 'literature'.

frequency of reinforcement as second elements in such constructions; e.g. the words *salam* 'person', *pam* 'night', *cip* 'house', *pang* 'room', *kwa* 'department', *kaps* 'price', and the morphs *sil* 'room', *ca* 'character', *pep* 'law, way', etc.

The second type of syntactic marker usually occurs between words and differs from the first type in several respects: It occurs only after a word ending in a vowel in its basic shape. In addition to the shape /q/ before reinforceable consonants, the marker has the shape /n/ before a following nasal or the shape /t/ before a following vowel; *n* is an automatic reflex of a basic *t*, and a basic *t* itself is a sort of interim clearing-house for other morphophonemes (including *h*, §11.1.2, and *q*, §11.1.5 fn 15). The occurrence of the marker (given the proper environment) seems to be determined by the prior word rather than the following one. Instead of ignoring this reinforcement, the native orthography usually adds a final *s* to the preceding syllable. (Formerly this sort of Bindungs-S was written between the two syllables, as if in recognition of its status as a syntactic marker.) Here are examples of the second type: *twī* 'back' in *twīp path* 'back yard', *twīk kan* 'outhouse', *twīn mun* 'back door', *twīn namu* 'toilet wood (used as toilet paper)'; *kho* 'nose' in *khok kwumeng* 'nostril', *khot tāt* 'base (of nose)', *khop pyēng* 'nose ailment', *khos soli* 'nasal sound', *khon mul* 'nasal mucous', *khon nal* 'bridge of nose'; *pay* 'boat' in *payk kil* 'waterway', *payn meli* 'bow of ship', *payn melmi* 'seasickness' (variant *pay melmi*), *payn nolay* 'chanty'; *wu* 'above' in *wus salam* 'superior people', *wuc cali* 'senior seat', *wut os* 'outer garments', *wut elun* 'elders', *wun nyekh* 'upper part', *wun ni* 'upper teeth'. I am tempted to treat the prior words as single morphemes with the basic shape *twīq*, *khog*, *payq*, *wuq*, etc., since we see that /q/ drops between vowels and, we can add, before pause (fn 17). But there are a few examples like *kho nolay* (which does have the variant *khon nolay*, however) 'nasal singing' and these make it perhaps better to posit the occurrence of the same syntactic marker morpheme as in type one, but in these cases occurring at the end of the prior constituent in the construction, rather than infixed at the beginning of the second constituent.

As a derivative infix, the meaning of /q/ is either intensive or lively: *cikum* 'now', *cikkum* 'right now'; *cwus-* / *cwu-* 'glean, pick up', *ccwus-* / *ccwu-* 'peck at'; *coch-* 'follow', *ccoch-* 'pursue'; *pulk-* 'red', *ppulk-* 'very red'; *kem-* 'black', *kkem-* 'very black', *pet-* 'extend', *ppet-* 'stretch'; *cokom* 'a little', *cokkom* 'just a bit'; *palu-* 'be right, direct', *ppalu-* 'be fast'; *tal-* 'be different', *ttal-* 'separately'; *to* 'also, too' (particle), *tto* 'in addition, else' (adverb); *tus* (*ha-*) 'give the idea or impression of' (descriptive verbal noun), *ttus* 'will, mind; meaning'; *kangtong*, *kkangtong* 'hopping up and down'; *kapun* (*ha-*) 'be light', *kappun* (*ha-*) 'be very light'; *katur* (*ha-*) 'be light', *kattun* (*ha-*) 'be very light'; *katuk* (*ha-*) 'be full', *kattuk* (*ha-*) 'be chock-full'.

There is considerable variation in the occurrence of reinforcement in different dialect areas; it is much more infrequent in the South (e.g. Taegu, Pusan) than in Seoul and the North.

15. Voice-related bases. There are related pairs of Korean verbs which differ in VOICE. We find two types: PASSIVE related to ACTIVE, and CAUSATIVE related to ACTIVE. The relationship is both semantic and formal. The underlying root

is usually the same; the base of the passive or causative contains some derivative suffix. A Korean verb which does not belong to such a pair is simply active.

All passive verbs are intransitive; all causative verbs are transitive. Active verbs include both intransitives and transitives. The active verb with which a passive verb is paired is transitive; the active verb with which a causative verb is paired may be either transitive or intransitive.

If the active verb is intransitive, the subject of the active verb is equivalent to the object of the causative verb: *Ayki ka ū[i]ca ey ance* 'The baby sits down on the chair', *Ayki lul ū[i]ca ey anchinta* 'Someone seats the baby on the chair' or 'Someone gets the baby to sit on the chair'. If the active verb is transitive, the subject of the active verb is equivalent to the indirect object of the causative verb: *Ai ka pap ul meke* 'The child eats the food', *Ai eykey pap ul meykinta* 'Someone feeds the food to the child' or 'Someone gets the child to eat the food'. The direct object (first goal) is marked by the particle *ul* / *lul*, the indirect object (second goal) by the particle *eykey* or one of its synonyms (*hanthey*, *poko*, and the honorific *kkey*). If the underlying active verb is intransitive, the causative verb will usually have only a direct object (the person or object caused to do or be something).

15.1. Criteria for pairing. We know a related pair is PASSIVE-ACTIVE if the statement A *ka* verb₁ (passive) is a partially equivalent description of the same situation as B *ka* A *lul* verb₂ (active): *Kūlim i kellinta* 'The picture gets hung' = *Kūlim ul kele* 'Someone hangs the picture.' We know a related pair is CAUSATIVE-ACTIVE if:

(1) The statement A *ka* B *eykey* (C *lul*) verb₁ (causative) is a partially equivalent description of the same situation as B *ka* (C *lul*) verb₂ (active, transitive): *Ai eykey pap ul meykinta* 'Someone gets the child to eat the food' = *Ai ka pap ul meke* 'The child eats the food.'

(2) The statement A *ka* B *lul* verb₁ (causative) is a partially equivalent description of the same situation as B *ka* verb₂ (active, intransitive): *Ayki lul ū[i]ca ey anchinta* 'Someone seats the baby on the chair' = *Ayki ka ū[i]ca ey ance* 'The baby sits down on the chair.'

Semantics is involved in our criteria only to the extent of determining whether the two types of sentence can be true of the same situation. The verb bases *sikhi-* 'cause', *ha-* 'make', and *mayntu-l-* 'make' are also used with a kind of causative MEANING, and the base *toy-* 'become' and the verbal noun expression *tang ha-* 'undergo' are also used with a kind of passive MEANING, but we do not consider these verbs as causative and passive in themselves, because none of them is related to an underlying 'active' counterpart.

The basic meaning of most causative verbs is something like 'makes it so that something happens'. There is no good general translation in English; we have our choice of 'makes someone do it', suggesting force and coercion, or 'lets someone do it', suggesting permission to do something the other person wants to do. The Korean causative implies neither force nor permission; you can only tell from context whether the act someone is caused to do is one he wants to do, or one he has to do.

The basic meaning of most passive verbs is something like 'gets so that something does or might happen to it'. Often the meaning of a Korean passive verb has some extra flavor of AVAILABLE or POTENTIAL undergoing of an action. Compare *San i pointa* 'The mountains are available to be seen, can be seen (whether anyone is actually looking or not)' with *San ul ponta* 'The mountains are sighted; someone sees the mountains.'

A causative verb can be paraphrased by using the adverbial (*-key*) form of the underlying active verb followed by *ha-* 'make', *sikhi-* 'order, cause', or (if a descriptive base) *mayntu-l-* 'make'. *Ai lul anchinta* 'He seats the child' can be paraphrased as *Ai eykey ankkey hanta* 'He makes it so that the child sits down', *Ai eykey wuyu lul meykinta* 'He feeds the child milk' can be paraphrased as *Ai eykey wuyu lul mekkey sikhinta* 'He causes it so that the child drinks milk.' Or, the causative can be paraphrased by two clauses: *Ai lul sikhye se, wuyu lul mekkey hanta* 'Ordering the child, he gets him to drink milk.'

There is no very good way to paraphrase a passive verb. The grammarian's device *-um ul tang ha-nta* 'undergoes the doing of ...' sounds quite artificial in most cases. Occasionally *-key toy-* 'get to be so that' seems like a paraphrase of the passive, but usually the meaning of the construction is that of externally originated gradual inception 'happen that ..., come to pass that ..., get so that ...'

15.2. Voice-deriving suffixes. The morpheme of the causative suffix has a number of shapes which are identical with shapes of the passive suffix. As a result, convergence occasionally produces homonymous causative and passive forms from the same active base: *cap-* 'catch', *ca(y)phi-* 'get caught', *ca(y)phi-* 'cause to catch'; *halth-* 'lick', *halthi-* 'get licked', *halthi-* 'cause to lick' [both pronounced *halchi-*, see fn. 13]; *ilk-* 'read', *ilkh-* 'get read', *ilkh-* 'cause to read'; *kkakk-* 'cut', *kkakki-* 'be cut', *kkakki-* 'cause to cut'; *po-* 'see', *poi-* (*poy-*) 'get seen', *poi-* (*poy-*) 'cause to see, show'; *ssu-* 'write; use', *ss(u)i-* 'get written; get used', *ss(u)i-* 'cause to write; cause to use'; *tu-l-* 'lift up', *tulli-* 'get lifted up', *tulli-* 'cause to lift up'; *ttut-* 'graze, bite', *ttukki-* 'get bitten', *ttukki-* 'cause to graze.'

In some verbs we have what might be thought an occurrence of one of these two suffix morphemes, but either there is no underlying active counterpart to justify an analysis like *sik-hi-* 'causes'; or, if there is an underlying form (*tul-li-* 'drop in', *tu-l-* 'enter'), the syntactic relationship between the two does not fulfil the criteria listed in §15.1. In the latter situation, we do have two elements, since there is a semantically related underlying form: a root + a derivative suffix, but this suffix is not to be identified with either the passive or the causative suffix, though the shapes are often the same. There are at least three morphemes to take into account: one which specifically indicates the passive member of a passive-active pair, another which specifically indicates the causative member of a causative-active pair, and a third which derives verbs with some other specification or limitation of the meaning of the underlying root.²² *Tuli-* 'give to

²² The voice-deriving suffixes should not be confused with the intensive suffix *-chi-*, morphemically related to the auxiliary verb *chi-* (used after the infinitive as an intensifier):

a superior' is historically a causative formed on *tu-l-* 'hold', but the particularization of meaning impairs a descriptive identification.

The passive and causative suffixes have many shapes in common, so we may consider them together. These shapes divide into two thematic groups: (1) those shapes which include the phoneme *i*, and (2) those shapes which include the phoneme *wu* (but not the phoneme *i*); there is also (3) an athematic group. Suffixes with the *wu*-theme (and, apparently, the athematic ones) all form CAUSATIVES only; suffixes with the *i*-theme form both causatives and passives.

The actual shapes are listed below. Critical examples are given for each shape. C = causative, P = passive, I = intransitive, T = transitive, A = descriptive (adjectival) base.

1. *i*-THEME (CAUSATIVE, PASSIVE)

-i-	<i>cwuk.i-</i> 'kill' (C) from <i>cwuk-</i> 'die' (I)	(u↓)- <i>iwu-</i>	<i>pul.liwu-</i> (<i>pul.li-</i>) 'be called' (P) from <i>pulu-</i> 'call'
	<i>nanwu.i-</i> 'be divided' (P) from <i>nanwu-</i> 'divide' (T)		[i.e. drop the final <i>u</i> and add - <i>iwu</i>]
-hi-	<i>anc.hi-</i> 'seat' (C) from <i>anc-</i> 'sit down' (I)		<i>ss.iwu-</i> (<i>ssu.i-</i>) 'have someone write' (C) from <i>ssu-</i> 'write' (T)
	<i>mek.hi-</i> 'get eaten' (P) from <i>mek-</i> 'eat' (T)		<i>ss.iwu-</i> (<i>ssu.i-</i>) 'be written' (P) from <i>ssu-</i> 'write' (I)
-ki-	<i>swum.ki-</i> 'conceal' (C) from <i>swum-</i> 'be hidden' (I)	(u↓)- <i>li-</i>	[i.e. drop the final <i>u</i> and add <i>li</i>]
	<i>ccik.ki-</i> 'get torn' (P) from <i>ccicc-</i> 'tear' (T)		<i>hul.li-</i> 'make flow' (C) from <i>hulu-</i> 'flow' (I)
-ukhi-	<i>il.ukhi-</i> 'raise' (C) from <i>i-l-</i> 'rise' (I) [rare except for the infinitive <i>ile</i>]	(h↓)- <i>i-</i>	<i>nwul.li-</i> 'be pressed down' (P) from <i>nwulu-</i> 'press down' (T)
	<i>al.ukhi-</i> 'inform' (C) from <i>ā-l-</i> 'know' (T)		[i.e. drop the final <i>h</i> and add <i>i</i>]
-ikhi-	<i>tol.ikhi-</i> 'turn (head)' (C) from <i>to-l-</i> 'turn' (I)	(u↓)- <i>i-</i>	<i>kkul.i-</i> 'make boil' (C) from <i>kkulh-</i> 'boil' (I)
	<i>al.li-</i> 'inform' (C) from <i>ā-l-</i> 'know' (T)		[i.e. drop the final <i>u</i> and add <i>i</i>]
-li-	<i>tul.li-</i> 'be heard' (P) from <i>tul-</i> 'hear' (T)	(c → ks)- <i>i-</i>	<i>mo.i-</i> 'come together, gather' (P) from <i>mou-</i> 'put together, gather' (T)
	<i>al.liwu-</i> 'be known' (P) from <i>ā-l-</i> 'know' (T)		[i.e. change the final <i>c</i> to <i>ks</i> and add <i>i</i>]
(u↓)- <i>liwu-</i>	[i.e. drop the final <i>u</i> and add - <i>liwu-</i>]		<i>ceks.i-</i> 'make wet' (C) from <i>cec-</i> 'get wet' (I)

2. *wu*-THEME (CAUSATIVE)

-wu-	<i>kkay.wu-</i> 'wake someone' (C) from <i>kkay-</i> 'wake up' (I)
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nēmchi- 'exceed; overextend oneself' from *nēm-* 'exceed, overdo'; *nochi-* = *noh-chi* 'loose, drop' from *noh-* 'unfasten, let go'; *tepch-* = *teph-chi* 'press, surround' from *teph-* 'envelop; cover with'; *ppechi-* = *ppet-chi* 'spread out' from *ppet-* 'extend'; *epchi-* = *eph-chi* 'upset' from *eph-* 'overturn'.

Notice the difference in morphophonemic constituency between the two homonymous bases *pachi-* = *pat-chi* 'support, prop up' (intensive of *pat-* 'receive, take') and *pachi-* = *pat-hi* but officially spelled *pa-chi* 'present, submit', causative of *pat-*. (Not to be confused with *pat-hi* 'get gored' from *pat-* 'gore'.) There is also a third base *pachi-* 'sift, strain', with the morphophonemic constituency *path-chi*: the intensive suffix is attached to *path-* 'sift, strain', a base which has been virtually replaced in colloquial speech by its derived intensive.

- <i>hwu-</i>	<i>nac.hwu-</i> ³⁴ 'abase, make low' (C) from <i>nac-</i> 'be low' (A)	- <i>kwu-</i>	<i>sok.kwu-</i> 'make rise' (C) from <i>sos-</i> 'spring up' (I)
(u → ey) - <i>wu-</i>	[i.e. change the final <i>u</i> to <i>ey</i> and add <i>wu</i>]	- <i>ay</i>	3. ATHEMATIC (CAUSATIVE) <i>ēpsay-</i> 'make disappear, use up' (C) from <i>ēps-</i> 'be non-existent' (A)
	<i>sey.wu-</i> 'make stand, establish' (C) from <i>su-</i> 'stand' (I)	- <i>y</i>	<i>nāy-</i> 'put out' (C) from <i>na-</i> 'go out' (I)
(ew → ey) - <i>wu-</i>	[i.e. change the final <i>ew</i> to <i>ey</i> and add <i>wu</i>]	(h↓)- <i>y</i>	[i.e. drop the final <i>h</i> and add <i>y</i>] <i>tāy-</i> 'bring in contact' (C) from <i>tāh-</i> 'come in contact' (I)
	<i>tey.wu-</i> 'heat' (C) from <i>tew-</i> 'be hot' (A)	-0-	[zero] <i>pī-</i> 'make empty' (C) from <i>pī-</i> 'be empty' (A)

16. Miscellaneous alternations. There are a number of small-scale alternations or variations which involve dropping the last phoneme of a morph in certain combinations. *Kyewul* 'winter' drops the final *l* in the words *kyewu-sal.i* 'winter garb' and *kyewu-nay* 'all through the winter' (this word also has the variant *kyewul-lay*). *Nolang* 'yellow' drops the *ng* in *nola.h-* / *nola-* 'be yellow' (cf. variant *tta* for *tang* 'earth').³⁵ *Pul* 'fire' drops its final consonant in *pu-napi* 'moth' (*napi* 'butterfly'), *pu-nemki* 'a kind of stove' (*nemki-* 'pass over' or *nemki* = *nem-kki* 'going over'), *pu-son* 'fire tongs' (*son* 'hand'), and *pu-sap* 'fire shovel' (*sap* 'shovel'). Other *l*-dropping elements are *atul* 'son' in *atu-nim* 'honored son', *chal* 'sticky' in *cha-co* 'glutinous millet' (*co* 'millet') and *cha-tol* 'flint' (*tol* 'stone'), *hwal* 'bow' in *hwa-sal* 'arrow' (*sal* 'arrow'), *mal* 'horse' in *ma-so* 'horses and oxen; draft animals'; *mal* 'peck' in *ma-toy* 'pecks and dishfuls' (*toy* 'a measuring dish'); *mul* 'water' in *mu-cawi* 'pump', *panul* 'needle' in *panu-cil* 'needlework', *sol* 'pine-tree' in *so-namu* (variant *sol lamu*), *ssal* 'rice' in *ssa-cen* 'rice-store', *tal* 'month' in *ta-tal-i* 'month after month', *ttal* 'daughter' in *tta-nim* 'honored daughter', and the base *yē-l-* 'open' in *ye-tat-* 'open and shut'. The words *na* 'I' and *ce* 'oneself; I (formal)' have the shapes *nay* and *cey* before a noun: *nay sayngkak* 'thoughts of me' or 'my thoughts', *cey tongsayng* 'my younger brother'. They also have these shapes before the particle *ka*: *nay ka*, *cey ka*,³⁶ and these shapes occur when the particle is replaced by zero in construction variants: *Nay kako siphe* = *Nay ka kako siphe* 'I want to go'. The word *nwukwu* has the abbreviated shape *nwu* in front of the particle *ka*: *Nwu ka wasse* 'Who came?'

The primary (native) set of numerals from 1 to 4 (*hana*, *twūl*, *sēys*, *nēys*) and

³⁴ Officially spelled *nac-chwu-*; so also, *kac-chwu-* for *kac.hwu-* 'prepare', *mac-chwu-* for *mac.hwu-* 'spell'; *nuc-chwu-* for *nuc.hwu-* 'loosen; delay'.

³⁵ But perhaps the *-ng* of *nolang* is to be considered a nominalizing suffix. A number of the ambivalent bases have such forms: *phalang* 'blueness', *ha-yang* 'whiteness', (*k*)*kamang* 'blackness', *pulkeng* 'redness'.

³⁶ Historically, *nay* and *cey* have two different sources: (1) abbreviations of the combinations *na ey* (*ui*) and *ce ey* (*ui*) with the subordinating particle—cf. present-day variants *na -ykey* and *na eykey* 'to me'; (2) abbreviations of the combinations *na + i* and *ce + i* (subject particle). The alternants *i* and *ka* of the subject particle were not always in complementary distribution; in literary Korean, the shape *i* occurs after vowels as well as consonants.

the numerals 20 (*sumul*) and 'a large number' (*yeles*) drop their final phoneme when followed by any noun other than the ordinalizing post-noun *ccay* or a numeral of a lower value: *sumul ccay* '20th' and *sumul ttwul* '22' but *sumu selun* '20 or 30', *sumu salam* '20 people'. There are special forms for 3 and 4 (*sek* and *nek* respectively) before most counters beginning with *c* like *cang* 'flat object' and *can* 'cupful', and before some beginning with *t* like *tal* 'month'. There are variants *se* and *ne* for *sey* '3' and *ney* '4' before a few units of measurement such as *mal* 'peck' and *pal* 'span'.

There is a set of approximate numbers: *twu-es* 'about 2', *sen-es* 'about 3', *net-es* 'about 4', *tāys.O* 'about 5', *twu-sen-es* 'about 2 or 3', *sen.e-net-es* 'about 3 or 4', *net.e-tāys.O* 'about 4 or 5', *tāy-yeses-* 'about 5 or 6'. With the exception of *tāy-yeses-*, each of these loses its final phoneme before a noun. The morpheme for 'approximate numeral' has the alternant shapes *es*, *e*, and *O*. The numeral *yeles* 'a large number' looks like the approximate numeral form of *yel* '10'.

Days are irregularly counted from 1 to 10; I break the forms into morphs as follows: *ha.lwu* (*ha.lo*) '1 day', *it.hul* '2 days', *sā.hul* '3 days', *na.hul* '4 days', *tas.say* '5 days', *yes.say* '6 days', *il.ey* (*il.hey*) '7 days', *yetul.ey* '8 days', *ahu.ley* '9 days', *yel.hul* '10 days'. The morpheme of the counter for days has the alternants *lwu* (*lo*), *hul*, *say*, *ey*, and *ley*.

The primary numerals for the tens have the following morph structure: *sel.un* (*sel.hun*) '30', *ma.hun* '40', *swi.n* '50', *yeys.wun* '60', *il.hun* '70', *yet.un* '80', *ahu.n* '90'. The numeral *sumul* '20' seems to be a special case. Leaving it aside, we can present the alternants of the primary numeral morphemes as follows:

1 <i>hana</i> , <i>han</i> , <i>ha</i>	7 <i>ilkop</i> (<i>ilkup</i>), <i>il</i>
2 <i>twul</i> , <i>twū</i> , <i>it</i>	8 <i>yetelp</i> (<i>yetel</i>), <i>yetul</i> , <i>yet</i> (and variants <i>yeytelp</i> , <i>yeytul</i> , §2.5)
3 <i>sēys</i> , <i>sēy</i> , <i>sek</i> , <i>se</i> , <i>sen</i> , <i>sā</i> , <i>sel</i>	9 <i>ahop</i> (<i>ahup</i>), <i>ahu</i>
4 <i>nēys</i> , <i>nēy</i> , <i>nek</i> , <i>net</i> , <i>na</i> , <i>ma</i>	10 <i>yel</i> (and variant <i>yeyl</i> , §2.5)
5 <i>tases</i> , <i>tāys</i> , <i>tāy</i> , <i>tas</i> , <i>swi</i>	-0 <i>un</i> , <i>hun</i> , <i>n</i> , <i>wun</i>
6 <i>yeses</i> , <i>yes</i> , <i>yeys</i> (and variants <i>yeyses</i> , <i>eyses</i> , §2.5)	

In addition to the alternations discussed in §9, each of the secondary numerals of Chinese origin *yuk* '6' and *sip* '10' drops its final phoneme in the month names *yū-wel* 'June' and *sī-wel* 'October'. The word *pha-il* '8 April' contains a shortened alternant of *phal* '8'.

The demonstrative pre-nouns show a relationship with nouns of place:

<i>i</i> (<i>yo</i>) 'this'	<i>ye.ki</i> 'this place'
<i>ku</i> (<i>ko</i>) 'that'	<i>ke.ki</i> 'that place'
<i>ce</i> 'that over there'	<i>ce.ki</i> 'that place over there'

The morpheme *kas* 'hat' has the alternant *kal* in *kalmō* 'raincover (for hat)'; *mo* is perhaps the first morph of *moca* 'hat'.

There are a few nouns whose shape as second members of certain compounds indicates the former existence of an anomalous initial cluster in their basic shape, a kind of initial syllable excess (cf. §7). (The indication is substantiated by older spellings.) One is *-pttay* 'time' in *ipttay* 'up till now' (*i* 'this' + *ttay* 'time'). An-

other is *-pssal* 'rice' in *chapssal* 'glutinous rice' (*chal* 'sticky', for the dropped *l* see above), *copssal* 'millet' (*co* 'millet'), *haypssal* 'new rice' (*hay* 'year'), *meypssal* 'partly polished rice' (*mey-* 'nonglutinous'). I have noted a few colloquial variant forms like *hanakssik* for *hana ssik* 'one each' which are perhaps of a similar type.

There are also a few nouns whose behavior as first members of certain compounds indicates the former existence of an anomalous final *h* in the basic shape: *swuh* for *swu* 'male' in *swuthalk* 'cock' (*talk* 'chicken'), *swukhay* 'male dog' (*kay* 'dog'), *swukhes* 'male' (*kes* 'thing, one'), *swukhōm* 'male bear' (*kōm* 'bear') [but *swu kwayngi* 'tomcat'], *swuphēm* 'male tiger'; *amh* for *am* 'female' in *amthalk* 'hen', *amkhay* 'bitch', *amkhes* 'female', *amkhōm* 'female bear' [but *am kwayngi* 'female cat'] *amphēm* 'female tiger', *amkhul* 'women's script [old name for Han-kul]' (*kul* 'script'); *anh* for *an* 'inside' in *anphakk* 'inside and outside' (*pakk* 'outside') and in *anhay* = *anay* 'wife' < '(house-)inside child'; *melih* for *meli* 'head' in *melikhalak* 'a hair on the head' (*kalak* 'stick'); *coh* for *co* 'millet' in *cophap* 'boiled millet' (*pap* 'boiled rice'); *salh* for *sal* 'flesh' in *salkhoki* 'red meat' (*koki* 'meat'). Cf. Hisung I 246-8.

17. Intonation morphs. In Korean Phonemics, two pitch components were presented: RAISING and LOWERING. I now find it more convenient to speak in terms of three features: RISE, FALL, and DIP. The dip can be described as a fall immediately followed by a rise.

The following intonation morphs occur, and can be noted by placing at the end of the phrase or sentence the symbols listed in parentheses below. An intonation morph always occurs in conjunction with the pause phoneme, but there are occurrences of pause without an intonation morph.

1. PERIOD intonation (.): a fall, beginning on the third, second or last syllable from the end of the sentence (if on the last syllable, the morph is homonymous with 4).
2. COMMA intonation (,): a rise on the last syllable of a phrase.
3. QUESTION-MARK intonation (?): a rise on the third, second, or last syllable of the sentence (if on the last syllable, the morph is homonymous with 2).
4. EXCLAMATION-POINT intonation (!): a fall on the last syllable of the sentence, often accompanied by a voice qualifier of overloudness.
5. DOUBLE QUESTION-MARK intonation (??): a dip on the third, second, or last syllable from the end of the sentence (homonymous with 7 when on the last syllable).
6. DOUBLE EXCLAMATION-POINT intonation (!!): a dip on the third, second, or (rarely) last syllable followed by a fall on the next (rarely, the same) syllable.
7. TRIPLE DOT intonation (...): a dip on the last syllable of a phrase or sentence, often accompanied by a voice qualifier of overlength.

Every phrase or utterance of more than one syllable has a gradual non-distinctive rise throughout until the onset of the particular intonation morph.

To show the meanings of these intonations, which differ with different styles, a number of critical examples are given below. They are divided into three groups: the first two, formal style and casual polite style, are sentence-final; the third is phrase-final.

1. FORMAL STYLE

- Ku i ka kasumnita.* 'He went.' (statement)
Nwu ka kasumnita. 'Someone went.' (statement with indefinite meaning of interrogative-indefinite word)
Kapsita. 'Let's go.' (suggestion)
Kapsita! 'Let's go!' (insistent suggestion)
Kasio. 'Go.' (command)
Kasio! 'Go!' (insistent command)
Ku i ka kasumnikka? 'Did he go?' (question)
Nwu ka kasumnikka? 'Did someone go?' (question with indefinite meaning of interrogative-indefinite word)
Nwu ka kasumnikka. 'Who went?' (question with interrogative meaning of interrogative-indefinite word)

2. CASUAL POLITE STYLE

- Kaci yo.* (1) 'I suppose he's going. He's going, you know.' (statement)
 (2) 'Suppose we go. Let's go.' (suggestion)
 (3) 'Suppose you go. Go.' (command)
Nwu ka kaci yo. (1) 'Someone is going, I suppose.' (statement with indefinite meaning of interrogative-indefinite word)
 (2) 'Who (do you suppose) is going?' (question with interrogative meaning of interrogative-indefinite word)
Kaci yo! (1) 'He IS going!' (insistent statement)
 (2) 'Suppose we go! Let's go!' (insistent suggestion)
 (3) 'Suppose you go! Go!' (insistent command)
Nwu ka kaci yo! (1) 'Someone is going, you know.' (insistent statement with indefinite meaning of interrogative-indefinite word)
 (2) 'Who do you suppose is going?' (insistent question with interrogative meaning of interrogative-indefinite word)
Kaci yo! (1) 'I suppose he's going? Is he going?' (lively insistent question)
 (2) 'He's going, isn't he?' (lively insistent rhetorical question)
 (3) 'Suppose we go!' (lively insistent suggestion)
 (4) 'Suppose you go!' (lively insistent command)
Nwu ka kaci yo!! 'Someone is going, isn't he?' (lively insistent rhetorical question with indefinite meaning of interrogative-indefinite word)
Kaci yo? 'I suppose he's going?' (question)
Nwu ka kaci yo? 'Who do you suppose is going?' (question with interrogative meaning of interrogative-indefinite word)
Kaci yo?? (1) 'You know, he's going!' (lively statement)
 (2) 'I suppose he's going? Is he going?' (lively question)
 (3) 'He's going, isn't he.' (rhetorical question)
 (4) 'Are we going = let's go.' (lively suggestion)
Nwu ka kaci yo?? (1) 'Who (do you suppose) is going?' (lively question with interrogative meaning of interrogative-indefinite word)
 (2) 'Someone is going, isn't he.' (rhetorical question with indefinite meaning of interrogative-indefinite word)

3. PHRASE-FINAL

- Wuli hako, wuli pumo nim hako, iuc cip ssalam tul i, ta pyeng i nasse.* 'Me, my parents, and the neighbors, we all got sick.' (temporary suspension)
Onul hal lil manhun tey ... nukkey wa to cōha yo? 'I've got a lot to do today, so ... is it all right if I come late?' (hesitation)

The question-mark intonation primarily means QUESTION, the exclamation-point intonation means INSISTENCE, the double question-mark intonation means RHETORICAL QUESTION or LIVELY, the double exclamation-point intonation means

LIVELY AND INSISTENT. The comma intonation means TEMPORARY SUSPENSION and the triple-dot intonation means HESITATION. The period intonation simply means sentence-final when no other intonation is used.

The meaning of statement, question, suggestion, and command are sometimes carried (in whole or in part) by the intonation, but often these meanings are wholly or partly expressed by morphs in the ending of the verb form.

18. Conclusion. The subject of Korean morphophonemics has by no means been exhausted in this paper, but I believe the major patterns and problems have been covered. Certain theoretical problems of morpheme identification which do not vary in kind from those discussed for Japanese in Morphophonemics of Standard Colloquial Japanese, Language Dissertation No. 47 (1952), I have passed over in silence. There are undoubtedly a host of minor small-scale alternations to be accounted for in the lexicon. There are some interesting shape alternations in the formation of diminutives (Hong 198-207) and in reduplicated forms (Hong 128 ff., 189 ff.).

A number of interesting derivational points remain to be explored. Perhaps the least recognized of these is the derivative infix *h*, which parallels to some extent the infix *q* (§14): *chelem* 'like' (particle) from *cele.m* 'being like that' (abbreviation of *cele ha.m*); *ku tholok* 'to that point, extent' from *-tolok* (projective mood); *thulli-* 'differ' from *talu-* 'be different'; *tele-huli-* 'drop' and *kkay-thuli-* 'smash, shatter' from *tuli-* 'hang down'; *khem.khem ha-* 'be very dark' from *kēm-* 'be black'; *phingphing* 'round and round' from *pingping* 'round and round' (also *ppingpping* 'round and round'); and possibly *phal* 'arm' from *pal* 'foot'; the 'site, place' from *tey* 'place'. Another is the use of different vowels to give nuances to terms referring to impressions: *malk-* 'be clear', *mulk-* 'be watery' (cf. *mul* 'water'); *kalk-* 'scratch with something sharp', *kulk-* 'scratch' (cf. *khal* 'knife'); *nalk-* 'look old, worn-out', *nulk-* 'be old' (cf. *nul* 'always'); *palk-* 'get bright, dawn', *pulk-* 'be red' (cf. *pul* 'fire'), etc. (Other examples can be found in the lists of §11.3.) On sound symbolism of this sort, cf. Hong 109 ff.³⁷

³⁷ A few quasi-endings have not been included in the lists of §12 because I consider them literary clichés or abbreviations. The descriptive verbal noun *tus* 'appearance' is usually preceded by a modifier form, but it attaches directly to the base in common literary clichés used in the colloquial: *Kanan han cip ey ceysa tola o-tus hata* 'It seems to come around as often as the anniversary of a poor man's ancestors.' I consider the ending *-ta-ni* an abbreviation of *-ta hani*, a literary quotative construction which corresponds to colloquial *-ta hani* when attached to a descriptive base but *-nunta / -nta hani* when attached to a processive base. The abbreviated form of this construction is borrowed into the colloquial (for both descriptive and processive verbs) with a special meaning in which the 'quotation' form is a little more than a grammatical device: *Kulen cis ul hata -ni ne to papo -ta* 'It is very silly of you to do such a thing.' This is one of the few places where the plain indicative assertive *-ta* attaches directly to a processive base even in the colloquial, another is in literary clichés with the derived adverb *siph-i* 'being inclined toward'. A third occurrence is found by equating the ending with that of the transference (§12.11).

BIBLIOGRAPHY

- Ceng Kyengsek and others, *Mopem sen-hwa sacen* [Model Korean-Japanese dictionary]; Seoul, 1928.
- Ceng Thaycin and Kim Pyengcey, *Cosen koe pangen sacen* [Dictionary of Korean archaisms and dialect forms]; Seoul, 1948.
- Choy Hyenpay, *Hankul kal* [Koreanology]; Seoul, 1940 et seq.
- Id., *Wuli mal concwung ui kunpon ttus* [The basic meaning of respecting our language = Keep our language pure]; Seoul, 1953.
- Id., *Wuli mal pon* [Korean grammar], 2d ed.; Seoul, 1941.
- Choy Kunhak, *Hankul machwum ppep cengthong* [A textbook of Korean spelling]; Seoul, 1952.
- Cosene Yenkwu Hoy [Korean Language Research Society], *Sen-hwa sin-sacen* [New Korean-Japanese dictionary]; Seoul, 1930.
- Hankul Hakhoy [Korean Language Society], *Hankul machwum ppep thongil an* [Guide for the unification of Korean spelling], 4th rev. ed.; Seoul, 1948.
- Id., *Oylay-e phyoki ppep thongil an* [Guide for the unified spelling of loanwords]; Seoul, 1946.
- Hong Kimun, *Cosen munppep yenkwu* [A study of Korean grammar], Seoul, 1947.
- Elinor Clark Horne, *Introduction to spoken Korean*, 2 vols.; New Haven, 1950-1.
- I Hisung, *Hankul machwum ppep thongil an kang(u)i* [Lectures on the Guide for the unification of Korean spelling], 4th ed.; Seoul, 1948.
- I Sungnyeng, *Koe ui umin kwa munppep* [Phonology and grammar of the archaic language]; Seoul, 1947.
- I Sungnyeng, *Sip-o seyki ui moin cheykey wa icwung moin ui Kontraktion-cek palttal ey tay ha-ye* [On vowel system in the 15th century and contractional development of diphthongs in the Korean language], *Tongpang hak ci* [Journal of Far Eastern studies, Chosun Christian College] 1.331-432 (1954).
- I Yangha and Kwen Cwunghwi, *(Mincwung sekwan) Phokhet yeng-han sacen* [(Minjung Sugwan's) English-Korean pocket dictionary]; Seoul, 1954.
- I Yengchel, *Kwuke chamkose: Thulliki swiwun mal* [Common mistakes: A Korean language reference book]; Seoul, 1947.
- I Yuncay, *Phyocwun cosen mal sacen* [Dictionary of standard Korean]; Seoul, 1947.
- A. A. Kholodovich, *Koreyskiy-russkiy slovar': Co-no sacen* [Korean-Russian dictionary]; Moscow, 1950.
- Kim Hyengkyu, *Kwuke-hak sa* [History of Korean language study], Vol. 1; Seoul, 1954.
- Kim Pyengcey, *Hankul machwum ppep haysel* [Exposition of Hankul spelling]; Seoul, 1946.
- Kim Yunkyeng, *Cosen muncca mith ehak sa* [A history of Korean letters and language study], Seoul, 1938.
- Koonoo Rokuro, *Oñmuñ kobuñkeñ no seiteñ ni tuite* [Phonetic signs as seen in ancient Korean literature], *Tyoosen gakuho* [Journal of the Academic Association of Koreanology in Japan] 1.93-140 (1951).
- Kyeng Sicwu, *Cosene munppep* [Korean grammar]; Seoul, 1946.
- Fred Lukoff, *Spoken Korean*, 2 vols.; New York, 1947.
- Samuel E. Martin, *Korean phonemics*, *Lg.* 27.519-33 (1951).
- Id., *Morphophonemics of standard colloquial Japanese* (*Lg.* diss. 47); Baltimore, 1952.
- Pak Wensik, *(Kongmun ssunun i lul wi-han) Hankul palo ssuki* [Korean orthography (for those writing official documents)]; Seoul, 1953.
- Usatov, Mazur, and Mozdykov, with Congsik Pak and H. S. Kim, *Russko-koreyskiy slovar': No-co sacen* [Russian-Korean dictionary]; Moscow, 1952. (Includes grammatical sketch of Korean by Mazur, 949-1020.)
- Rulon S. Wells, *Automatic alternation*, *Lg.* 25.99-116 (1949).
- Id., *Immediate constituents*, *Lg.* 23.81-116 (1947).
- Yu Yel, *(Alki swiwun) Hankul kangcwa* [(Simple) Lectures on Hankul]; Seoul, 1948.